Starting a Dairy Goat Business

A Guide for Farmers

STARTING A DAIRY GOAT BUSINESS

A GUIDE FOR FARMERS

A Publication by the

Wisconsin Department of Agriculture, Trade and Consumer Protection

August, 2008

2811 Agriculture Drive PO Box 8911 Madison, WI 53708-8911 608-224-5012 wisconsin.gov

The Wisconsin Department of Agriculture, Trade and Consumer Protection gratefully acknowledges the efforts of the writers of this publication, all of whom donated their time to assist in the on-going development of the dairy goat industry in Wisconsin and the region.

TABLE OF CONTENTS

Page

Starting a Dairy Goat Business

Introduction

One of the biggest problems facing someone getting into the dairy or meat goat business is recognizing that it is not a quick easy business to get into and operate. Too many people see goats as nice, easy to manage animals that take little in the way of facilities, land, or labor.

While some of this may be true in comparison to a bovine dairy, much is just blue sky speculation based on wants, not realities. We must determine what our dreams and desires are in the context of the sober realities of the real business world. A lack of knowledge and planning has caused the short-term run of more than one goat operation, in particular new dairy goat start-ups.

Anyone interested in goats needs to spend some time with several people in the business. You need to be knowledgeable about the business needs, husbandry needs, markets, and do a careful assessment of financial needs.

Attitude is critical. You must ask yourself: "Am I willing to work long days 7 days a week all year?" Yes, after the main kidding season is over, labor goes way down but the industry movement is to year-round production, or at least a spreading out of breeding and kidding seasons to even cash flow and the labor needs of taking care of hundreds of kids over a short period of time.

Key Questions

What are your goals?

- Is this a supplemental income or intended as a family support activity?
- Do you plan on all family labor to be concentrated in the business or will you expect outside income for the short term or long term?
- How much money do you need for family living?

What is your market?

Identify if a market exists for goat milk or its products. Is there a market for kids, and/or meat goat sales for dairies and/or meat goat operations? Be careful in determining the future stability of breeding stock revenue when considering long-term revenue. The meat animal market is very unique compared with other meat markets due to the demographic make-up of meat goat consumers, as well as infrastructure immaturity.

What are your capital needs?

Identify capital needs. This includes facility needs along with all related equipment needed to handle the animals, as well as meet government regulations. In addition, if breeding stock is to be purchased, the cost of all purchases should be projected out over the time needed to meet the desired herd

size. It would be less than prudent to assume a startup phase of less than 4 to 6 years before a business can be considered entering its stable phase.

What financial resources do you have to put into the startup of the business?

In order to take stock of your current financial situation, you will want to complete a balance sheet as well as assess income sources. In evaluating your financial resources, be sure also to take stock of non-cash support, such things as family or friends' labor and shared equipment use. Do a multi-year budget including start-up, a transition phase (2^{nd} to 5^{th} year as needed), and a long term typical annual financial plan.

What support resources are available?

There are many resources available to you including: UW-Extension Services, the Wisconsin Technical College System FBPM program, your field representative from your milk plant or marketing co-ops, veterinary expertise, financial experts, fellow producers and other producer-based support groups

Husbandry Issues

Below are a few husbandry-related items to keep in mind as you build your herd.

1. Genetics (or lack thereof)
- Care must be taken in buying stock try to get performance-based stock.
- Genetic progress by A.I. is possible but industry support is sporadic and many products available to other species are not always available.

2. Health information is growing in quantity and quality but still awaits standard protocols. Few veterinarians have extensive knowledge and many producers state opinions based on beliefs rather than sound science.
3. Nutrition is hurt by a lack of skilled industry support and lack of local nutritional trials specific to dairy goats.
4. Facility needs and options are being developed on the fly by many producers.

There is a need for information to be collected, verified, and disseminated to other producers if the industry is to develop to its potential. Too many new startups fail due to poor information and unfounded expectations.

The bottom line is that this is an emerging industry, with much potential, but many unanswered questions at this time. The ability of this industry to develop will depend on the emergence of key support structures, and markets, with top performing individuals involved in each of the key areas identified here.

This manual should help you as you begin to research the viability of launching a dairy goat enterprise on your farm.

Starting a Dairy Goat Business

Personal Assessment

Will a dairy goat operation fit your personal and family lifestyle? Answering this question is one of the first and perhaps most important question you need to consider before entering into this enterprise. How well this type of operation meets your personal and family values plays heavily into your job satisfaction. Assessing your skills, attributes, and resources will help you identify your strengths and limitations and lay the groundwork for setting goals, finding resources, and acquiring new skills.

Values Inventory

Values are the basic principles you hold that give meaning and purpose to your life. They are essential to your happiness and satisfaction so it is vital that they be a part of your job choice. Below are some values that could play a part in your satisfaction as a dairy goat farmer. Consider them in terms of how important each of these values is to you.

- Approval: have others think favorably about what you do
- Autonomy: self-government
- Creativity: be innovative, imaginative, create something new
- Family: being with family members
- Independence: do things on your own without a lot of orders and direction from others
- Learning: gaining knowledge, comprehension or mastery through experience or study
- Material Status: possessing financial or material possessions
- Security: assured of keeping job, free from concern of loss of resources
- Skill: proficiency; expertness
- Variety: having a number of different things to do
- Wealth: accumulation of money, possessions, property

When you think of what's involved in dairy goat farming, how closely does that match your values? Your satisfaction in this enterprise will have a lot to do with how closely you are able to incorporate your most important values into your lifestyle.

Resource Inventory

In addition to considering your values, there are a number of questions you can ask yourself and your family members to help you determine if a dairy goat operation will fit your lifestyle.

ATTRA (Appropriate Technology Transfer for Rural Areas), National Sustainable Agriculture Information Services, lists a good set of questions to help you evaluate your resources in their "Evaluating a Rural Enterprise" Marketing and Resource Guide (May 2002) available on the web at http://attra.ncat.org/.

Starting a Dairy Goat Business

- Do I have time to devote to dairy goat farming?
- Does the workload correspond with the time of year I want to work?
- Will a dairy goat enterprise complement my current enterprises?
- Do I have the skills and experience necessary to do this?
- Have I managed a business before?
- Do I like to supervise people (if my operation will require it)?
- Do I have enough personal energy to do this?
- Can I count on my family members for support?
- Do I care what the neighbors think about dairy goats?
- Why do I want this enterprise?

More excellent resource questions come from *PRIMER for Selecting New Enterprises for your Farm*, by Tim Woods and Steve Isaacs, Agricultural Economics Extension, No. 00-13 August 2000. University of Kentucky Cooperative Extension.

- Do I have the "know how" to produce and sell this product?
- If I don't "know how", do I know who to ask?
- Am I willing and able to approach different people for advice?
- Does market research and development appeal to me?
- Am I willing to spend as much effort in marketing as in production?
- Will I have to do the major part of marketing?
- Will it require a lot of effort to prepare the product for the market?
- Is this something I will enjoy doing?
- Is there enough variety in the production and marketing activity to keep this interesting?
- Is a dairy goat enterprise adaptable to my area?
- What are the sources of risk in this enterprise (production, financial, marketing)?
- Am I willing to work with those risks? Is my family?

Consider all of these questions and your personal and family values. Then, list 3 good reasons for getting into a dairy goat enterprise.

1._____

2._____

3._____

Does this still look like a good fit for you? Okay, now list 3 good reasons for getting out of (or not getting into) a dairy goat enterprise.

1._____

2._____

3._____

Use this analysis to help you make the decision to move forward with your plans or to shift directions. If you do move forward with a dairy goat operation, keep the reasons for getting out somewhere handy. The information and exercises in this section should be reviewed from time to time to help you plan much more effectively for continuing your operation or to plan for an orderly exit.

Starting a Dairy Goat Business

Goal Setting

"When a man does not know what harbor he's making for, no wind is the right wind."
—Seneca

As you looked through the table of contents of this start-up guide, I'll bet 'goal setting' wasn't the first place you turned. Most of us are 'do-ers' and would prefer to jump right to the part where the goats are in the barn and you're ready to milk. We can easily visualize that end point, but the process of transforming your dream into a reality starts with some thoughtful introspection and planning. Making sure your aptitudes and values are a good fit with the requirements of this enterprise will not only make it more likely that you'll reach that dream, but it will make the journey there more fun.

Setting goals and mapping out a plan will enhance your chances of success. Just as important as setting goals are the decisions you make every day that will lead you either toward or away from those goals. Most successful farmers are quite deliberate about setting goals and making decisions. The development of their farm enterprise begins with a vision, but is accomplished through the more mundane steps of business planning and farm 'staff meetings' to monitor progress and make adjustments.

Good communication is key to the whole process. Establishing a new farm enterprise can involve significant changes in your financial status and your quality of life, and it may require changes in relationships among decision-makers. When my husband Bill and I started farming in our mid-forties, we suddenly found ourselves needing to communicate in a whole new way. Before then, with our separate careers, we'd never worked together on a project so large and complicated as running a farm and a business. We expected to learn a lot about pasture management and animal husbandry, and have been surprised at how much we've learned about each other. It's been fun and challenging.

Three Keys to Success

According to author and business professor Jim Collins, a successful business happens when you bring together:

1. What you are deeply passionate about.
2. What you can be the best in the world at.
3. What drives your economic engine.

What your farm actually produces is less important to your success than aligning these three things.

This chapter will use these keys to provide a template for setting goals, making decisions, and monitoring your progress toward achieving success.

Management Team

Start by deciding who your 'decision-makers' are going to be. Your decision-making team should include everyone who has a stake in the farm enterprise's success or can contribute to that success. Your spouse and other family members, business partners, and, in some cases, hired help should all be part of the team. Even if family members aren't directly involved in the day-to-day operation of the farm, it's worthwhile to involve them in planning and management. Having everyone's wholehearted support for the enterprise can make the difference between success and failure. You might consider including children as well. Being a member of the farm team can contribute very positively to a child's growth and education.

Inventory Resources

As you begin setting goals and developing a business plan, it's helpful to do an inventory of resources available to you. Call a meeting of your team and do some brainstorming. What are the resources you have at your disposal? List your land, equipment, animals and other physical resources, and the labor and money you have available, including lines of credit.

Now think a little more broadly: What information resources do you have access to? Local libraries, Extension offices, crop consultants, the Dairy Goat Association? Do you have neighbors that you can trade work with or a rich uncle you can borrow from? Write them all down.

How about your own skills and aptitudes? Whether you've always farmed or are coming to farming from another career, you have skills that can be of value to your farm enterprise.

For example, my neighbors, who are building a farmstead bottling plant for their cow dairy have matched the unique skills of individual family members with the appropriate jobs. James, the outgoing brother, is in charge of the bottling and retail store. Rob, who's more reserved, takes care of the milking herd. Wives Jenny and Rebecca raise the calves and do the book-keeping, respectively, and their semi-retired dad fills in where needed. They pull in a father-in-law who lives down the road to help with fieldwork. So, being 'artistic' or 'good with people' or 'mechanically-inclined' are all resources that may come in handy as you build your business.

Starting a Dairy Goat Business

Creating a Vision for Your Farm

Think about goal setting like planning a trip. You start with the end point—where do you want to travel to? Then you fill in the details of how you're going to get there. The goal-setting process should start with the 'finished product' and work backward to fill in more concrete timeframes and objectives.

So, start with that dream—what does it look like? Where do you want to be in 5 years? 10 years? What will your farm look like when it's successful and prosperous?

Now…do the rest of your decision-makers have the same vision? Does a goat dairy look the same to them as it does to you? Are they motivated by the same things? Establishing goals that accommodate everyone's motivations will ensure that everyone will give their best toward the effort.

This 'vision statement' is intentionally values-based and is not necessarily very concrete. It embodies the passions you bring to farming and it should address your values—how you feel about the land and animals under your care, the food you produce, or the consumers you're producing for.

Once you have a shared vision for your farm, try to boil it down to a few sentences. You'll find that working with your partners and family to verbalize your goals and committing them to paper fundamentally changes how you think of them.

Financial Goals

Most new businesses succeed because their managers are motivated by more than money and this is probably more true about farming than about many other types of businesses. Frankly, farming is hard work and the likelihood of 'getting rich' is pretty slim. So financial goals should be balanced with personal goals. Your farm enterprise must be profitable to be sustainable, and setting realistic financial goals are a means to achieve those other goals.

Money is often a difficult subject to talk about, but it's essential to have this discussion with your farm partners and family before you embark on this enterprise. Is this enterprise intended to be your primary or sole source of income? Or will you operate your goat dairy as a sideline to another farm enterprise or an off-farm job? How much will it cost to establish the business and will you need to borrow money to do so? At this point, you should focus on general principles on how financial issues will be handled. The financial details will be dealt with during the business planning process.

For example, when we started farming, Bill and I both worked off the farm and our goal was to build a beef enterprise that could

generate a modest retirement income of $15,000 to $20,000 per year. We planned to develop it slowly, since we had over 10 years to work on it and were determined not to incur debt in the process. When Bill was laid off from his job four years ago, we had to revisit our financial goals and make some adjustments. We sped up the timeline, but retained our conviction to avoid borrowing money.

Personal Goals

So if we're motivated to farm by more than the lucrative financial benefits, what are those motivations? It's human nature to try to separate personal goals from business goals, but I would argue that it is important to bring those personal goals out and make them a part of your business goals. Here's why: few people pursue financial success for its own sake. People earn money to support their quality of life. In some professions, it's relatively easy to separate your work and financial life from your personal life. In farming, that's almost impossible. On a dairy farm, farm work and quality of life are inexorably entangled. Building personal goals and needs into your business plan makes sure the farm will be sustainable.

Most people are happiest when they're meeting some fundamental personal needs that we all share. In addition to financial security, these include: personal growth (challenging yourself to learn new skills, gain new knowledge), contribution (giving something of yourself to your community), relationships (could be with customers, family, community). Think and talk about these things with your family and partners.

For example, most dairy farms milk twice a day, seven days a week. Will those evening milkings allow you the time to go to your kids' band concerts and soccer games? Will you be able to continue with your church activities or other charitable work? Make sure your new farm operation is flexible enough to allow you to meet those important needs.

Putting it Together and Making a Plan

Finally, put your financial and personal or family goals together into a description of where you want your operation to end up. Developing a farm business will take time and it's important to 'keep your eyes on the prize' as you move forward.

For Bill and I, this statement sums up our goal: To establish a direct market beef enterprise generating about $15,000 a year in net income and providing us with an opportunity to work together, enjoy the health benefits of farm work, and sustainably produce good tasting, healthy beef for local customers.

Objectives and Timetable

Next, you need to create a realistic timetable for achieving your goal. This will depend primarily on money and time. Where will the money come from? Are you going to borrow or do you need to generate funds to establish the business from on-farm or off-farm income? How much time do you have to devote to building the business? Do you work off-farm? What are your other time commitments?

Once you have a timeline in mind, you need to determine the steps needed to get to that goal. These are more concrete, specific objectives. For each step, establish a deadline for completion and make someone accountable for completing the task. Plan to have periodic check-ins to make sure the plan is on track. Monitoring your progress and correcting course are important to the ultimate success of the project. The length of the timeline will be dependent on the character of your enterprise and how you intend to finance it. The length of the timeline determines how often you need to 'check-in'.

The timeline Bill and I established for ourselves related directly to our goal of generating a retirement income. We had plenty of time (about 10 years) and were not interested in borrowing money, so we planned to grow our business slowly on a 'pay-as-you-go' basis. It made sense to us for our plan to have three 'phases', each covering 2 to 3 years. Here's what it looked like:

<u>Phase 1 (2002-2005):</u>
Fence in first 30 acres.

Establish pasture.
Buy 12 bred cows.
Buy heavy steers to finish on pasture (to build a customer base).
Rent out the rest of the farm (50 acres).

<u>Phase 2 (2005-2007):</u>
Fence and seed down field across the road for pasture (about 15 acres).
Continue renting out other 35 acres.
Save heifer calves to grow herd.
Begin selling own bull calves for meat.
Phase out buying steers.

<u>Phase 3 (2008-2010):</u>
Phase out renter.
Fence and seed down remaining 35 acres.
Continue growing herd with our own heifers.
Continue selling our own bull calves for meat.

Each year, we'd sit down and assess what we'd accomplished and whether we needed to modify the plan. We made changes, and you can expect to as well. The plan is a guideline, to keep you on track, but reality is always different from what we imagine and adjustments are always necessary. But if you're deliberate in your planning and

deliberate in your monitoring, you won't lose sight of your ultimate goal.

Decision Making

The final piece in the goal setting process is decision-making. Each of us makes hundreds of decisions each day, and while most of them are trivial (what should I have for lunch?), a few thoughts about how we make decisions might help you make the important decisions more wisely.

The big decision to enter into this endeavor is built on hundreds of smaller decisions, each of which has the potential to move you toward or away from your goal. Will you retrofit an existing building for your milking parlor or build a new one? Will you produce your own feed or buy it? Who will you buy it from? What breed of goat will you use? Where will you sell your milk?

Most people make decisions like these primarily on a financial basis, but many of these decisions have the potential to influence not only how well this new enterprise performs financially, but can have a profound effect on your quality of life and family needs. As you consider these decisions, keeping in mind the overarching goals you have set will help you stay on the right track.

Here again, sometimes a more formal process can help you consistently get good results with your decision-making. Rely on your management team to help. Ask yourself: what are my options in making this decision? Which of these options will move me farther toward my ultimate goal? Which is more affordable financially? Which one will is more efficient in terms of time and/or money? Which options do my family members and/or partners prefer? Which one best reflects the values and mission of our farm?

As with goal setting and monitoring, decision-making is best done with family and partners involved. Good communication and a clear vision will keep you on track to your goals, and will go a long way toward making your new enterprise not only financially successful, but also a rewarding endeavor for all involved.

Summary

Goal setting is a means of establishing a deliberate, effective process for building your farm business. It involves the steps of identifying decision-makers and resources, establishing a shared vision, setting long-term goals, developing a timeline and short-term objectives, and monitoring your progress through sound decision-making. Throughout the process, communication is critical among your family members and partners. Successful businesses are founded by people who are both passionate and

deliberate about what they're doing. And don't forget—part of the fun is getting there!

To Build Your Dream

- **Establish a plan to build your business**
- **Identify decision-makers**
- **Identify resources**
- **Establish a shared vision**
- **Set long-term goals**
- **Develop a timeline**
- **List short-term objectives**
- **Monitor your progress**
- **Practice good communication with decision makers and resources**

"The greater part of all the mischief in the world arises from the fact that men do not sufficiently understand their own aims."

—Goethe

Starting a Dairy Goat Business

Researching the Industry and Determining Feasibility

If you want to get into the goat business, the question you must ask yourself is "why?" Is it to make use of resources you already own? To make use of extra time? As a hobby or as a way to make a living? These questions lead to the ultimate questions of:

- What are the possible products to sell? (Meat, milk, cheese, soap etc.)
- What support is out there in production supplies, technical support, markets?
- What is the potential profitability?

What is the State of the Industry

At the present time the meat and milk goat sector is the fastest growing segment of the animal agriculture industry. In Wisconsin, as of late 2006, there were 165 dairy goat herds, with 79 percent of those planning to expand in the future. In addition, recent goat industry events have drawn large numbers of existing and potentially new producers. While goats were one of the first domesticated animals, the goat industry must be viewed as a young, developing market segment. If current trends continue, the goat industry may continue to grow and provide opportunities to many farms.

One of the first reasons for growth in the goat industry is a desire by modest to small farm owners and operators to make use of their properties. Goats fit this niche for many reasons including the lower cost of facilities and infrastructure needed for goat enterprises versus most other livestock enterprises.

Many view raising goats as a return to the land as part of a new-age back-to-the-earth concept. Others see this as a profitable business move to supplement or become their primary income. Regardless of the motive, the result is a strong interest by many to get into the business or expand already existing operations. But this begs the question of what is driving the demand in the market.

Who Consumes Goat Products?

The majority of Americans have not been active consumers of goat products. This is primarily due to the fact that most Americans come from culinary and ethnic backgrounds that include little or no consumption of goat meat or goat dairy products.

However, this is slowly changing. Many young Americans are looking for a broader range of foods. This may be due to exposure from growing ethnic diversity and expansion of offerings on the grocery shelf and in restaurants, or for health reasons. In addition, many Americans are looking for food from what is perceived to be smaller family farms. In general goat production fits this perception.

Starting a Dairy Goat Business

Probably the most significant factor in growth of demand at this time is the dramatic increase in ethnic populations and their cultural familiarity and desire for goat products. Not only are the numbers of these groups growing but their purchasing power is increasing. These factors create a significant demand increase that appears will be sustained for some time to come. The largest goat-consuming ethnic populations in the United States are the Hispanic, Muslim, and Caribbean Island populations.

These facts point to a great deal of potential for prospective goat producers, processors, and consumers. Still, much needs to be done for this young and growing industry to progress. The following list of advantages and disadvantages of goat production are adapted from an excellent study by West Virginia University called, "Feasibility of Goat Production in West Virginia" by Doolarie Singh-Knights and Marlon Knights.

Advantages for Goat Production Systems

1. Increasing demand

Demand for goat meat has been expanding in the US since 1994. There has been an increase in goat meat imports of 30% per year. In addition, domestic meat production has doubled since 1980. In 1991 the US was using 2,000 to 3,000 liters of goats' milk weekly for cheese making and was importing 500,000 kg of cheeses worth $15 million annually from France alone. At the same time, four million liters was being turned into dry and powder milk and 2.5 million liters was used as fluid milk.

In 2006 Wisconsin dairy farmers sold 271,250 CWT of milk. This shows the tremendous milk production increase for the dairy state, with demand continuing to increase. The demand for goat products such as fine cheese, soaps, and other products has seen growth that opens opportunities for new entrants.

2. Rising prices

The annual price paid per pound of goat meat increased in the period of 1999 to 2004, increasing $0.15 per pound in 2003 and 2004. Milk prices in Wisconsin averaged $27.90 in 2006. With management changes to extend the milking season year around and concentration on high quality, this price can be improved upon. In addition, diversification through farm produced artisan products such as soap, yogurt, ice cream, and cheese offer unique opportunities for some.

3. Reduced competition

Sheep production is decreasing, thus reducing competition, but putting some small farms in a financial bind. With the increase in goat meat demand, these farms have a new option. Many small bovine dairy operations have closed or are in the process of closing. They provide Wisconsin

farmers a chance to use these facilities suited for dairy but too small to expand in the dairy cow business.

4. Relatively low capital investment

Goat production requires relatively lower inputs or capital and physical resources than other livestock systems. This is beneficial for smaller and part-time farmers. In addition, it allows for expansion to commercial size operation with a lower buy-in cost. Obviously, the type of product you wish to market will influence the costs. Meat goat finishing requires less investment. A meat goat breeding herd requires more investment. A dairy operation is even costlier. Adding processing equipment for cheese or other products makes for even more inputs than a regular dairy operation. You will need to assess the options open to you based on your interests and resources.

5. Efficient eaters

Goats are efficient converters of food intake to make meat, milk, hide, and other products. Goats can forage on a wider range of plants than other species, thus making good use of land that is marginal for other uses. However, low quality forages will limit milk production, thus lowering return on your investment.

6. Decreased geographic disparity

We are seeing reduced geographic disparity in markets for goat products such as meat, and goat milk as ethnic consumer populations become more widely distributed. In addition, the marketing efforts of various individuals, producer groups, and companies, while still limited in scope are widening the market. This should increase demand while holding costs of marketing products down.

7. Year-round breeding potential

Effective reproduction management can allow for year-round production whether it is for meat, milk and dairy products, hide and fiber or other products. This will reduce seasonal price impacts, and greatly improve the efficient use of resources.

Disadvantages of Meat Goat Production

1. Overall low demand

Overall consumer demand for goat meat, milk and dairy products in the US is relatively low and tends to be geographically concentrated. Thus, increases in production must be balanced with consumer demand and the ability to get the product from the producer to the consumer in an economical manner.

2. Seasonality

Seasonality of production, due to seasonal breeding, leads to several important issues. Production of market age animals and milk is not evenly distributed throughout the year. For most major grocery chains, this limits shelf space as they demand a consistent reliable supply year-round.

For meat goats, the traditional production cycle often does not meet the holiday and special events needs of ethnic groups. For dairy producers and plants, it leads to inefficient use of facilities and thus pricing systems that reward out-of-season production and negative prices during the seasonal flood of milk.

3. Limited infrastructure

Limited industry infrastructure can be a factor. There are only a few milk plants that handle goat milk. Thus, if a plant closes you may find that there is no alternative available to switch to. In the case of meat products marketing to some ethic groups severely limits where meat goats can be processed due to religious requirements of slaughter. Very few slaughter plants are presently setup to meet these requirements, which adds to shipping costs, and other problems.

If you are going to home produce and sell, you must meet legal requirements, standards, and facility requirements, in addition to finding markets on your own or as part of a cooperating group of producers.

4. Limited support

Limited production and marketing information is available from Universities, DATCP, and other industry sources. This is due in part to the relative youth of the industry and its recent growth into a more significant industry. These issues are being addressed and more support will develop in time as the industry matures.

5. Increasing costs

Increasing cost will be a major impact. As we see the cost of land, fuel, and related inputs increase, this will impact the buy-in cost and operating costs of goat businesses. The more it costs to take the raw product to finished product, the lower the profit margin will be. New producers will need to consider this in their planning.

Recommended reading on the industry is a study done by West Virginia University in 2005 called **Feasibility of Goat Production in West Virginia—A Handbook for Beginners**, bulletin 728, available over the internet. This publication deals mainly with meat goats but does an excellent overview of the industry.

Plan of Action

A plan of action will include an overview of the state of agriculture as a whole. This will include the overall economics for the foreseeable future. This will be influenced by government policy, the economy as a whole, and economic trends in costs and market prices. The USDA statistical reporting service and other branches of the USDA along with many agricultural publications may be of help in assessing the overall industry.

Next you will need to narrow your focus to your areas of interest: meat, milk, or other products. From here, you can begin your search for information. You need to identify the supporting infrastructure, markets, and technical support. The following should help guide you.

What Are My Options?

You must determine what area of goat production you are interested in. From this you can begin to research that market segment.

Ask yourself; is there a demand in my area for this product? If there are no buyers or processors in your area are there other potential markets? Just the desire to produce and sell does not mean anyone will buy or pay you what you need. The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), along with other producers and professional support groups, can often give you information related to the business and contacts to begin your search. Get as much information as you can, on the need for new producers, the prices being paid and the expectation for the future. Do not check just one company or buyer.

If you are looking at specialty production of items ranging from artisan cheese; to soap, fiber and leather; to any of many goat products, you may have to develop your own markets. This can be very rewarding, but as many have found out, it can be a full-time job all on its own. Take time to visit with others who have taken this path. Visit potential venders to survey their interest. Carefully assess your time and ability to handle this area of the business. Often you will find a group of similar individuals that have been down this road and can give valuable information on "do's and don'ts."

Conclusion

The goat industry as a whole is a very young industry in comparison to the other areas of main stream agriculture. Because of this, there are often more questions than answers, but that should never stop you from asking and digging for information. It is critical that you be very focused and attempt to sort the facts from the chaff. Use the Check List (**Appendix A**) to help you through the feasibility process.

Critical Questions to Research

- Are more producers needed?
- What price can producers expect to get for their milk?
- Are current producers confident about the industry and its future?
- Are goat farms profitable?
- Are farmers getting out of the business? If so, why?
- Is there help out there for new producers?
- Do I really want to do this?

Starting a Dairy Goat Business

Whenever you start something new, especially a business, it helps to identify expertise and available help from more experienced individuals, or specialists. No matter who you are you cannot know everything nor have all the skills necessary to succeed on your own. With this in mind, it is important to identify sources of knowledge, skills, and support to help you succeed. These resources can come from many sources which will be discussed in this section. Each source has its purpose whether it is education, technical knowledge and training, professional services, or general support. A wise individual will determine needs and make the best use of these resources to reduce stress and promote the greatest chance of success.

University of Wisconsin Cooperative Extension Services

The Cooperative Extension Service is a joint effort of the University of Wisconsin, the Federal Government, and County Governments. Each supports research, education, and business efforts through technical information, and educational programming. This broad approach allows a diversity of resources both to the individual and agricultural industries.

At the University level we have access to classes at the three agricultural campuses of Madison, Platteville, and River Falls. In addition, these and other campuses have specialists which cover a wide range of expertise that can be accessed by citizens of the state through conferences, workshops, and individual contact. Examples of industry support include the cheese maker training programs, and industry research on business and economics and production practices. In addition many of the UW system colleges have Small Business Development Centers (SBCD's) which can be of help in your business planning.

At the county level most counties have agricultural agents. These agents work with local farmers and agri-businesses to promote the success and growth of the agricultural industry. These efforts involve group workshops and seminars held locally and regionally, farm tours, and individual consultation and support. In addition, many agents support local producer groups by assisting them in getting together and organizing into producer-based support groups, with the emphasis on their identified goals and needs. The level of expertise will vary but the key is cooperation. Often your local agent will be able to provide you with contact information for specialists or individuals that will be able to meet your needs.

You can find your local agent by contacting the County Government under UW Cooperative Extension Service, or using the information in the WISCONSIN DAIRY RESOURCES GUIDE at the end of this publication.

Starting a Dairy Goat Business

Wisconsin Technical College System

The Wisconsin Technical College System divides the state into 16 districts, with 47 campuses and numerous outreach centers. The WTCS system offers educational efforts from less then one year certificates to 2 year associate degrees in numerous technical and business specialties. The goal is professional skill level training for entrance into or advancement in your chosen profession. The system main web page at www.wtcsystem.edu gives an excellent overview with a listing of all colleges and area maps in the system.

Virtually all of the districts offer business classes as part of some program in addition to non-program individual offerings. Also, several of the districts offer farm business oriented programs. Some of these are campus-based one or two year programs which offer comprehensive instruction based on real world situations. Contacting local districts will give you a clear picture of what is offered in your area.

Of special interest to farm operators is the Farm Business and Production Management Program offered by nine of the districts. This program is designed for those who are operating, actively working on or managing a farm. This program is offered in a unique format. As with most education, there are classroom sessions. These are generally offered in the middle of the winter to avoid field work times, and are aimed at providing a farm manager the business and production information and methods needed to succeed. In addition, there are unique on-farm visits, which many students feel are the most important part of the course. Instructors schedule on-farm visits with each student to provide one-on-one consultation over the course of the school year. This time is used to help the student apply modern information and methods to their individual farms needs.

Government Agencies

There are several government agencies directly involved with farmers that can be of great assistance.

DATCP - The Wisconsin Department of Agriculture, Trade, and Consumer Protection is involved in many areas that affect and support farmers and the industry. The department has collected information on many subjects from individuals in various businesses that may be of value to a farmer, from statistical information, industry contacts and many direct support activities. This publication is one among many examples of materials available to farmers. In addition, the department sponsors workshops and conferences that allow individuals to get together and network as well as hear outstanding presentations on topics of interest. The department also has the Wisconsin Farm Center, which provides a wide range of support efforts for

Wisconsin Farmers. Contact the Center at 1-800-942-2474.

USDA - The USDA has several divisions which support farmers, each with its area of responsibility and expertise. All farms are impacted in some way by one or more USDA agencies. These agencies can be invaluable in supporting your farm operation. You can save a lot of effort by taking advantage of USDA staff knowledge of programs and regulations, to help you make good business decisions.

FSA - The Farm Services Agency carries out a number of functions. One unit covers the various government programs relating to crops, livestock, and disasters. It is important to know what you are eligible for and the requirements. The other side of the office deals with agricultural financing. Many farmers, especially those just getting into the business or looking to buy a farm or expand have taken advantage of the many program offered by the FSA loan program. Loan types include farm ownership, capital item purchase, and annual farm operating loans. The FSA staff can be of great assistance in getting your financing program together.

NRCS and County Conservation Offices - The Natural Resources and Conservation Service, working along with the state and local conservation offices, located in each county, handle conservation plans and planning, engineering, approval of funding and compliance with conservation plans. The NRCS, along with the state and local offices, administers conservation programs offered in each county both for environmental regulation and for funding of cost-share projects. All farms are required to have a conservation plan that is followed, in order to get funding for conservation and nutrient management improvements and plan implementation. These agencies can be contacted under USDA listing and the County Conservation offices, under County Government, in most phone directories. Note that many counties now have a web site that will assist you in identifying department and personnel in your county.

Organizations - Local, State, and National
There are many associations or organizations at the national and state level, and even local groups that have the goal of supporting producers with information, contacts, and support. It is clear that goat farming, as a relatively new and growing industry, is lacking accessible knowledge. With the growth of the industry, we are seeing a growing, sophisticated support system emerge. Besides the national associations such as the American Dairy

Goat Association, we have the active Wisconsin Dairy Goat Association, www.wdga.org . New web sites such as The Goat Dairy Library, http://goatlibrary.org, are great resources. Good information is

available from ATTRA, the National Sustainable Agriculture Information Service. In addition, local goat producer networks are being formed. These groups are made up of local producers to help each other share methods, successes, and yes, failed efforts. For the beginner, joining a network provide technical as well as moral support. Often, your local extension office, DATCP, veterinarian, or milk plant can put you in contact with a group near you.

Veterinarians

When you think of the wide range of critters that our veterinary services are expected to cover, it should not come as a surprise that not every veterinarian is knowledgeable in goat health, beyond the basics. This is something you will need to research in your area or the area in which you propose to move. Local producers or marketing channels can give an assessment of veterinarians in your area. Interview area veterinarians to determine their experience and interest in goats. Many veterinarians have noticed the growth of the industry and are actively expanding their knowledge and skill in goats. But keep in mind we have much to learn about goats at this point. Be prepared for situations where the answers will be hard to find for you and your vet.

Feed Industry

Goats are not sheep. Just putting the word "goat" on a bag of feed does not mean it's what your goats need! One dilemma we face again is a lack of knowledge and expertise in the feed industry. Just as with other livestock, your goats' nutritional needs are unique not just because of the species. Needs will change due to age and production goals as well as the quality of forages available and environmental factors. You need to keep in mind the type of feeding program you need is influenced by facilities and labor needs, and available feed sources.

When selecting a nutritionist or feed source you should find out how much experience they have with goats. Ask about technical support. Do they do feed testing and ration formulation? Are they familiar with the nutritional needs of dairy and/or meat goats. Improper rations can lead to more than just poor performance. They can lead to poor reproduction and death losses.

If you must buy feed and forage, develop a buying strategy to control costs. Buy when prices are low, and when possible, contract future feed prices ahead of time. This can often save thousands of dollars in a given year. Forage purchases can be difficult due to quality and availability issues. When possible buy tested forages. Just because the hay is green and shows no mold does not mean it's what you need. Without testing, your nutritionist has little to go on to fine tune your feeding program.

Industry and Market Contacts, and Consultants

When you are looking for a market or plant to deliver to or market to sell to, determine their requirements, contract requirements, and what support they can provide. They may provide transportation, technical support, and marketing alternatives. In the case of milk plants, the field representative is your primary contact. Your field representative should know the plant rules and goals, in addition to having a good technical background. With a dairy goat operation you will also be dealing with milking equipment. Does the local dealer have experience with goat systems? Does the company have technical support to ensure a sound system? In the case of meat goats, some markets will require inspections from religious leaders to assure all standards are met based on beliefs and dietary rules. In addition, markets may vary according to the ethnic group being served or the time of year. Finding individuals who can assist you in learning the market is critical to success.

We have seen the emergence of consultants in many areas of goat raising and goat product manufacturing. As with any industry, some of these consultants may be just what you need and some may be a poor fit. When considering a consultant, first determine your needs. In light of these needs, search out a consultant with experience that matches. When interviewing a potential consultant ask for a resume of their experience and expertise, a list of services offered, and references. Remember, you are the boss and you can hire or fire your consultant if they do not provide the service you need. They are to assist you and meet your needs. Be ready to accept sound advice, even when it's not what you want to hear.

Financial, Accounting/Taxes, Attorney, and Others

As with any business you have to deal with financing debt, keeping a set of books, dealing with legal issues and any range of other special needs. Your team will need supportive specialists that not only provide their service but deliver advice based on your situation. Know your needs and select the individuals or businesses that can support you and your business. Be honest in your assessment of what you know and can do yourself. Do not be afraid to ask for references. Ask about their knowledge of goat farming and its unique needs.

The Web and Other Sources of Information

A web search will turn up many sources of information on goats and goat production. Much of it can be of value, but take care as some information on the net can contain questionable information. Some reliable sites have been listed in this text.

Starting a Dairy Goat Business

The University of Maryland's Small Ruminant site has many useful site listings, and Langston University has an on-line ration program, as well as much useful research and production information. A good strategy is to develop a bookmark section with your favorite sites for quick reference. For many, downloading pertinent information into file folder such as "goats," with sub folders for "health," "nutrition," "animal care," is appropriate. Develop your own library of resources. Way too often we think, I know where something is on the net, only to spend frustrating hours trying to find these files. Take it from one who has been there, bookmark or download and save the references you find important.

Summary

Identify your needs and determine what others can do for you. Take the time to identify sources of support both in your area, in the state and beyond. Determine what each resource has to offer you and develop a plan to integrate these people or resources into your business. Realize that your needs will change over time and be ready to adapt your team or support network to meet present needs.

Starting a Dairy Goat Business

Keeping a Healthy Herd

Start with Profitable, Healthy Animals

Choosing animals wisely will impact your dairy's profitability by three factors:

1) milk components
2) milk quality
3) longevity of the herd

There are wide variations in the milk components that are produced by various breeds and great variations within each breed. First, know what the creamery wants. If the milk is going to make cheese, the dairy needs to produce a large volume of milk per goat along with high protein content. In dairy goats, butterfat is of less importance than cow dairies, as goat butter is not in great demand. Cheese is made from protein and depending on the type, some butterfat.

When choosing goats, ask to see records of what the goats have produced. Some producers will have DHIA records but all will at least have bulk tank reports from the creamery. These are by the week or month and will show the volume of milk sold along with protein content, butterfat, and somatic cell count. Divide the volume shown on the bulk tank reports by the number of goats being milked. This will give the average production per goat. In general, Swiss breeds will give the largest volume per goat with Nubians and La Manchas giving the most protein and butterfat.

When choosing goats, milk quality is important. High somatic cell counts are an indication of the degree of mastitis (bacterial infection of the mammary gland) prevalent in the herd. Be aware that somatic cell counts always rise in goats in the fall of the year. A good somatic cell count in winter or spring is less than 300,000. An excellent count is less than 200,000. Milk quality is also measured by the bulk tank bacteria count (plate count). This will be high with active mastitis or poor sanitation of milking equipment. Plate counts under three are excellent, under 10 are good and over 25 are a problem.

Longevity of goats is important in a dairy herd. A long, productive life for a doe in a herd means she has paid for all her costs of being raised; produced milk for a profit; and produced offspring for replacements in the herd or for sale.

When choosing goats, look for herds with a large percentage of four to eight-year-old animals. This is an indication that the dairy is well-managed with healthy goats. By keeping goats productive longer, the producer will always have surplus doe kids to sell which can mean the difference between being profitable or not.

Profitability Factors

All breeds can have the three previous profitability factors, so why are dairies different? First in importance are hidden disease problems.

Johne's disease

Johne's disease is a mycobacterium that slowly over 2 to 4 years destroys the digestive tract, making the doe unable to digest food. The goat will eat but become thinner and thinner, then die. The disease is frustrating to diagnose without extensive testing and difficult to prevent without a determined effort. False negative tests are common.

C.L.A. – Caseous Lymphadenitis

C.L.A or contagious abscesses show up when the doe is 1 ½ to 4-years-old. They are untreatable and once infected, always infected. The doe will usually lose productivity and have a chronic, high somatic cell count. This is preventable with difficulty and expense.

C.A.E. - Caprine Arthritis Encephalitis

This insidious virus is a lentivirus in the retrovirius family, along with its cousin, H.I.V. in humans and E.I.A. in horses. As with the others, it affects the immune system with expression as chronic arthritis, encephalitis and mammary gland abnormalities. The virus is spread by the translocation of infected, intact white blood cells from one infected animal to another. This can be accomplished by ingestion of infected colostrum or saliva by a newborn or by using shared injection needles in any age animal. Heat treating colostrum and pasteurizing milk will reduce the risk of transmission. Needless to say, the infected goats will have a shorter productive life.

In conclusion, it is critical to know the disease status of the herd or individual animals you are purchasing. Ask if any testing has been done for Johne's disease. Ask what percentage of does develop abscesses and what efforts have been made to reduce the incidence. Find out if the kids are raised with a C.A.E. control program, since there are few C.A.E. negative herds. Be willing to pay a premium for disease free goats, as there will definitely be a positive economic return. Buy goats from a herd with a history of shipping quality milk with good components. Lastly, buy goats from a herd with good longevity.

Feeds and Feeding

Feeding will be the most costly part of the dairy operation. Goats are ruminants with four stomachs. As such, they are capable of converting forage into digestible products such as proteins and carbohydrates for production of milk, meat and fats.

Starting a Dairy Goat Business

Ruminant nutrition is primarily concerned with D.M.I. (dry matter intake) since the pounds of feed consumed will translate into more production. Feeding ruminants is a balancing act between feeding forages with slower digestibility and grains with rapid digestibility. Too much forage, especially of lower quality, will decrease the DMI, resulting in poor performance as measured in thin goats and less milk production. Too much grain will lead to acidosis of the rumen with poor performance and less milk. Because of this, it is best to work with a professional nutritionist to arrive at the most cost effective diet for your goats.

Goats are browsers; they prefer to eat leaves rather than grass. This makes grazing an option for goat dairies but difficult to manage properly. If the goats eat too many leaves, they are less digestible so lead to less DMI and lower production. Also, with green forage, the goats are consuming more water with the plant than dry forage so this lowers the DMI and production. The option of pasturing needs to be weighed against the cost of stored feed. Pasturing is less expensive than making or purchasing stored feed so in some cases the lower production is outweighed by the cheaper feed.

Be aware that goats like to sort their feed. They eat their favorite ingredients first (corn) and least favorite last (minerals). As a result, Total Mixed Rations (T.M.R.) do not work with goats and corn silage must be fed carefully or not at all.

Haylage and baleage work well with goats but understand the goats are very sensitive to spoilage products in baleage. Mycotoxins, listeria and clostridiums will result in lower production due to dead goats.

Goats have a hierarchy in the herd so there needs to be adequate feeder space for all goats to eat, even the more timid ones. Being natural grazers, goats like to eat in a feeder slightly higher than their front feet. They need to be easy to clean. Do not construct feeders or any goat housing out of green treated or preserved wood since the preservatives are very toxic when goats chew the wood. This will result in dead goats.

Water is the most essential nutrient and there should be adequate space for any goat to drink whenever she desires. Water tanks should be raised above tail level so manure contamination does not occur.

Feed storage needs to guarantee that hay is free of other animal feces, including cats, raccoons or dogs. Grain storage must also be clean, as well as dry, so spoilage does not occur.

Starting a Dairy Goat Business

Goat Health Care

Goats are naturally easy animals to keep healthy if you follow these rules.

- Goats must have a dry place to lie down. Since their manure is pelleted, a bedding pack works if the floor surface is flat and new bedding is added on top frequently.
- Goats need good air to breathe. Barns need to be designed to present air with low levels of CO_2, ammonia and water but not cause much of a draft. Young animals need a draft free environment with good air. Consult an extension agent to assist in developing a ventilation plan.
- Goats need clean feed and water, free of feces or urine.
- There needs to be a parasite control plan in place. Goats are susceptible to parasites, protozoa, internal helminthes (worms) and external lice. Consult with your veterinarian for a plan that will work with your operation.
- A vaccination plan needs to be implemented. Goats must be vaccinated to prevent loss from clostridial diseases such as tetanus and overeating disease. A need may exist for other vaccines such as CLA (caseous lymphadenitis), Chlamydia and viral respiratory diseases. Again, the dairy's veterinarian should be consulted to design a plan.
- Trim feet regularly. (This needs no other explanation. Just do it!)
- Establish a milk quality plan. Screen periodically with bulk tank cultures to detect disease problems early. Develop mastitis treatment protocols with your veterinarian. Use appropriate teat dip and maintain milking equipment as the milking machine company directs.
- The maternity area needs to be clean, draft-free and easily cleanable between kiddings or daily if multiple kiddings are occurring.
- A kid-rearing plan needs to be in place to raise future productive replacements. Depending on what insidious diseases are present, methods of control will vary.

Starting a Dairy Goat Business

Assessing Farm Land

Assessing land for your goat operation is one of the most important decisions you will make in your life. Because this decision is not an on-going business decision, it is too often based on emotion rather than careful analysis. The decision to purchase, lease, or inherit the farm involves long-term projections and may be a substantial capital investment. As such, it is always a risky decision that can have major consequences. The decision must be carefully analyzed.

Today the farm market is influenced by many factors. The single biggest factor is government payments to farmers. It is not known how long and at what level these payments will continue. This uncertainty clouds the picture of analyzing the farm's viability.

The first step to assessing a farm to purchase or lease is to decide what you really need and want. You need to set personal and family goals and create a business plan. Determine which of these goals can be influenced by the choice of a farm—its location, resources, and problems. Set priorities and choose which items are negotiable and what are your "deal breakers." Is it the quality of the soil, the current land use, the buildings and infrastructure, or the availability of nearby services and markets? Or, perhaps it's the house you'll be living in, the school district, or recreational and religious services found in nearby towns, the neighbors you'll have, access to an off-farm job, or the view from the house.

Once you set your goals, you are ready to start looking for land.

What is Viability?

Viability of a farm business is the ability of the receipts of the business to pay the operational expenses, make the debt/lease payments, and provide for family living. Viability depends on the quantity and quality of the resources of the farm business, how well the farm is managed, the debt load of the business (or cash rent), and the standard of living desired. Viability is directly interrelated to the goals and objectives of the owners and operators.

A basic question that should be answered before buying or leasing a farm is whether the resources available are adequate to provide the standard of living desired. The quantity and quality of land that is and will be available to the business is the most important physical resource. Buildings and equipment can be acquired but a shortage of productive land is a severe limitation to a farm business. It will limit your ability to produce your own feed stuffs and may limit your ability to grow the business.

Factors to consider in purchasing or leasing your farm operation are discussed below.

Location

An old adage in real estate appraisal says the three most important factors in determining the value of a parcel of real estate are location, location, location. The location is the key to the value. The location determines the farm's current use as well as its future use.

Land Use Limitations

The land and buildings may have legal limitations on their use, or may have liens or easements that impact usage. A title search and title insurance commitment will determine these limitations. It would be productive to ask the landowner about any of these issues. Also, check for zoning with the county or township. Ask about restrictions on land enrolled in government programs.

Building Assessment

Will the current buildings meet your needs? Are the current buildings structurally sound? Does the farmstead layout meet your current needs and allow future building expansion? Get cost estimates to update, remodel, or expand current buildings to meet your needs. Do the current buildings or planned remodeling meet local and state regulations?

Family Quality of Life

House: Is it right for your family? Is it safe with regards to the wiring and plumbing? Is it structurally sound? Is the water safe to drink (and use in a dairy facility)?

Neighbors: Take time to meet the neighbors. Ask them about the community, schools, and churches. Ask them about the farm you are considering purchasing or leasing. Is the region's population growing? What are the characteristics of the population (young, old etc)?

Schools and Churches: Evaluate the quality of education including the school district, adult education, and extension community resources. Is there a church for you in the community?

Community Resources: Visit the government offices, businesses and parks in the area. Retail services, recreational resources and community groups should also be researched, evaluated, and visited in assessing the quality of life you and your family would have in the community you are considering.

Farm Map/Aerial Photo

The next logical step is to obtain aerial photos of the farm you are considering leasing or purchasing. From these you get a general impression of the property and adjacent lands. Maps and aerial photos are

usually available at the county Farm Service Agency (FSA) office. While you're at the

FSA office, also request the soil survey reports including soil descriptions.

Plat books are also a valuable source of information about ownership neighbors, land features, road maps and a general legal description of the property. Plat books can be purchased at the local county courthouse.

Location and Roads

Transportation is important to your farm operation for personal usage, delivery of inputs, and shipping products. Drive around and consider the quality of roads. Are there road and/or bridge restrictions—weight limits or seasonal weight limits? Are there any dangerous intersections? What is your farm lane like? What will it be like in rainy or snowy weather?

Environmental Assessments

Clean water will be critical to your family and your farm. You will want to make sure that you have access to adequate quantities of good water for your home, your livestock, and any other needs. Some critical issues to be watched include:

- Quality of water evaluated by testing
- Susceptibility of the well to contamination due to its age, construction, and/or location.
- Request copies of past well testing results from the current owner and get a current test done.
- Find out if this well has the capacity you need
- Are there other environmental issues—
    - abandoned wells
    - abandoned fuel tanks
    - old dump sites
    - underground tanks

Septic Tanks

Most rural homes have septic systems. These need to be inspected by a licensed plumber to ensure they are still functioning. Find out if the system will support the added flow of milk-house wash water.

Electrical System and Stray Voltage

The electrical system should be inspected by a professional licensed electrician along with a representative from the utility supply company. Obtain estimates to correct any problems they identify. Ask the utility when the line was built and whether there are stray voltage issues.

Manure Storage and Management

Dairy goats produce fairly dry manure and, being smaller, much less manure than dairy cows. Nevertheless, you will need to assess the site with experts to determine the best manure management system for your site.

A farm with an existing manure storage lagoon can be either an asset or a liability. If the farm has a lagoon, evaluate whether the pit meets your needs, current standards or needs further assessment.

If the farm has no lagoon, determine how you will manage manure and what the state or county requirements are. Then get cost estimates of what it will take to bring the manure management plan into compliance with local and state code.

Determining Labor Needs

When considering the facilities, livestock, equipment and financing issues needed to run a farm business, you may overlook the most important component - human capital. The workers in your operation may come from family or friends initially, but as the business grows and matures, you may need other employees. The challenge becomes finding and keeping good employees.

The most critical part of human capital planning is aligning your employee needs with your business plan. The business plan must drive your human capital plan. Machines, livestock and crops will produce nothing without the human element. In part the efficiency of the farm depends more on the human element than any other resource. In addition to being the most important resource, it is by far the most complex resource. On many farms it is also the least managed resource.

Deciding When to Hire Employees

One of the more difficult decisions for an individual farmer to make is when and if to add employees beyond the work requirements of the owner. A part of this analysis is determining how much work one individual can do and do well. In most occupations there are industry benchmarks to use as guidelines. Essentially, you must determine whether an increase in staffing fits the long term business objectives.

A big question for most farm owners is "Do I really want to manage other people or do I prefer to stay at the one operator stage?" You must also analyze the efficiency of hiring an employee. Consider the impact on your net profit as staff is added. Does each additional employee result in an adequate increase in your net return?

Hiring Employees

Assuming you decided that it is time to hire additional help for your farm business, you must begin developing a human resources plan. The business plan will drive three parts of your human resources plan:

- The nature of the work
- The nature of the worker
- The nature of the workplace

The Nature of the Work

You need to ensure you are making good hires that are capable of performing critical functions of the business. One of the biggest mistakes farmers make is trying to fit the operation to the people it employs instead of the other way around. Be sure to define the job. A fundamental rule of management is to define the roles, expectations, and accountability for each job so that you know what to evaluate and how to manage performance.

The Nature of the Worker

Once the job is defined, it's easier to identify the characteristics required of the worker. Candidate selection and review is critical to the successful operation of your business. The single biggest reason for turnover is the poor selection of employees. Many employees are mismatched to their jobs. The most common reasons why farmers hire the wrong people are:

- Desperation—"I need someone now and I'm not sure where else to look."
- Reliance on the resume—Be sure to meet the candidate in person to discuss their background.
- Friendship or personal relationship
- The job and criteria are not clearly defined

The Application and Interview Process

Farmers increase their odds of hiring success by requiring resumes and application forms (see Appendix D). The selection process should include:

- An interview
- Background checks
- Ability testing
- Interest testing

By using these processes in evaluating candidates, you will get a good look at their past, present, and future.

- You see the past by reviewing their history—their resumes, education, and past employers
- Through the interview process you get a sense of their present—their professionalism, personality, style, as well as your gut feeling of how well they will fit your farm business.
- You can get a sense of their future job performance by testing their abilities, their motivations, and interests. Have applicants perform some actual tasks under your direction and observation.

Personnel Tasks

Every large or small company with any employees needs to have a personnel department that carries out certain functions. As a farm operation with a small number of employees, the personnel department will be you, the farmer/operator.

Functions of the personnel Department that you need to do include:

- Employment
- Training
- Fringe benefits
- Health and safety programs
- Transfer, promotion and discharge

The Interview

Ask a variety of types of questions when interviewing employment applicants. Have the questions prepared ahead of the interview. Make notes about the responses or the verbal expressions. Stay flexible with questions as responses often lead to other questions.

Types of Questions

- Closed questions—to gather facts. i.e. Where are you working now? How many years have you worked there?
- Open behavioral questions—to probe for more information such as: What is your job now? What's challenging for you?
- Hypothetical—assesses how people solve problems such as: What would you do in X situation? Listen closely to determine the candidate's thought process.
- Exploratory questions—probe a candidate's attitudes and desires with questions such as: Where do you want to be in 5 years? If you could change one thing about your life, what would it be?
- A reminder—Avoid asking questions about age, race, sex, or other questions that may lead to discrimination issues.

Answer Questions

An important part of the interview process is also selling yourself and your farm. Allow time to share information about yourself, your farm, this position, and the benefits of working for you. Allow the candidate to ask questions and be prepared to provide responses. If you are meeting on the farm, you may want to provide a tour of the operation. At the end of the interview, as part of the closure, give the candidate a timeline for you to get back to them with a hiring decision.

References

If the applicant is a viable candidate for the position, ask for references and permission to call the references. References should include current and/or past employers or supervisors. They may include teachers if the applicant is a student or recent graduate. Have a prepared list of questions to ask the references. Again, be prepared for some responses to lead to other questions. It is good business practice to contact at least three references so you get a variety of responses.

Job Offer

After interviewing candidates, checking references, and analyzing all the data, you need to make a decision. Are you going to hire from this group of candidates? Who is your first choice? What is your job offer? The offer may be communicated in various ways. The best method is face to face or a phone call. You want direct communication to make the offer and at will agreement to allow the candidate to ask any questions. It is best to give the candidate some time to respond to the offer. When the candidate accepts the position then, send all of the other applicants a letter thanking them for applying.

At-Will Agreement

When the candidate accepts the offer, this is the time to have them sign the *at-will work agreement* (see Appendix E). Keep the original and provide them with a copy.

Employee Orientation and Training

The quality of your orientation and training program has an impact on how well new employees perform on the job, how well they get along with their co-workers, their job satisfaction, and their overall success. To develop an effective orientation program follow these suggestions:

- Have an employee handbook that contains your farm policies and procedures.
- General information about daily routines such as breaks and lunch arrangements, how to use phones, computer, copier, fax machine etc. if applicable
- A description of the farm's history, purpose, and short and long-term objectives
- The "musts" for survival and success, start and end of work times and mandatory procedures.
- Information about the work, other employees, your family
- A checklist of orientation topics that you and the employee sign when completed
- Written job description
- Specific, written farm processes and procedures review

Employee Coaching

Giving employees the knowledge and skills they need to perform their job tasks is not employee coaching—that is employee training. Employee coaching is an ongoing process of helping the employee identify and overcome the hurdles that prevent them from excelling at their jobs. Employee coaching involves helping employees identify solutions to their performance barriers. You are not coaching your employee when you tell them what to do.

Employee Evaluation

All employees should have an annual performance review (see Appendix F). Consider a quarterly or semi-annual review for new employees. Areas to evaluate:

- Knowledge of work
- Quality of work
- Quantity of work
- Initiative
- Dependability/responsibility
- Interpersonal relationships
- Attendance/punctuality

Compensation

A compensation plan defines the behavior the farm values and will pay for. Four features that impact an effective compensation plan:

- It must be aligned with your business strategy
- It must reinforce the behavior your desire
- It must be affordable to the business
- It must be in harmony with the expectations of your employees

Compensation plans can have four components

- Base pay
- Bonuses and incentives
- Benefits
- Long-term wealth building plans

Base pay is for doing the job based on defined job duties.

Bonuses—a bonus is a surprise, it is not tied to any measurable expectation and is discretionary.

Incentives are compensation pay for exceeding the expectations of the job. An incentive is tied to some measurable expectation.

Benefit plans are put in place to support cash compensation. Plans may include health, disability, and life insurance and 401K plans.

Long-term wealth building plans are tied to long-term behavior and commitment. They may include options like ownership or options to purchase.

References for *Assessing Labor Needs*

- Practice Made Perfect, Mark C. Tibergien and Rebecca Pomering
- Personnel—The Human Problems of Management, George Strauss and Leonard R. Sayles
- Introduction to Business, 3rd edition, Hal B. Pickle and Royce L. Abrahamson

Starting a Dairy Goat Business

Practical Facilities

Goat Housing

Goats require only simple inexpensive housing. The optimum housing provides a well-drained, dry resting area with excellent ventilation and protection from drafts. Housing should protect dairy goats from wind, rain, and the hot sun. The animals should have easy access to adequate food and water. Because goats are a roving animal, they generally are not tied.

Many older two story dairy barns can be remodeled into goat housing relatively efficiently. Adult goats are most comfortable at between 50-60 degrees F and no production affect is seen down to 0 degrees F assuming there is adequate nutrition supplied. Kids are comfortable at slightly higher temperatures of 54-65 degrees F. Housing design should consider that goats are social animals and like to see each other. They are curious and climbers which requires good fencing. Space requirements are shown in Table 1.

Table 1.

Housing Type	Doe	Buck	Young Kids	Weaned Kid
Bedded pen	12-18 s.f.	30-40 s.f.	3-5.5 s.f.	8-10 s.f
Dirt Lot	25-40 s.f.	100 s.f.	NR	20-30 s.f.
Paved Lot	16 s.f.	NR	NR	10 s.f.
Total Confinement	20-25 s.f.	NR	8-10 s.f.	8-10 s.f.
Individual Pen	6’ x 6’	6’ x 6’	4’ x 4’	4’ x 4’
Pasture	0.5 acre			
Limit feeding	16-20 ”	12”	9-12 ”	9-12”
Feed always available	4-6 ”	6”	4’	4”

Table 1. Goat Space requirements (Ensminger &Parker, Sheep and Goat Science 1986)
(Note: s.f. = square feet; NR = Not Recommended).

Removable pen dividers, feeders, gates and large doors make it possible to get in with equipment to clean the accumulated manure and bedding. Be prepared to have double the number of goats after the first year unless kids are marketed. In loose housing a bed-pack eliminates daily cleaning. Allow bedding, manure and hay to accumulate and form a dry insulated layer which the goats can lie on. Farms that clean pens daily or weekly tend to have healthier animals.

Housing options include bedded group pens with or without an outside lot. The outside lots can be dirt, or paved with concrete. The fenced outside exercise area should also be well-drained.

Pasture may also be accessible during the summer. Table 1 shows the amount of space required for each goat. Individual pens for one animal should be 6' x 6' with a hay feeder grain box and water accessible. Individual kidding pens (jugs) should be 5' x 5' and there should be one pen for every 10 does that will give birth.

Pens should have at least 6" of clean dry bedding. A goat shed can be as simple as a three sided open design with low eave height for goats but high enough for access with a skid steer loader for cleaning. A dirt floor can be used but the feeding area should be concrete to easily clean up feed.

Portable penning can be used during the kidding season to allow continued use as the milk goat pen after the penning is removed. Portable housing options for goats include poly domes, calf hutches, Quonset huts and portable huts used for swine and cattle.

Ventilation

Natural ventilation can provide an adequate environment for goats. For winter ventilation the ridge should have a continuous opening that is 2" wide for every 10' of building width. Eave inlets can be sized for 1" opening width for every 10' of building width. For example a 40' wide building would have a continuous ridge outlet that is 8" wide and an eave inlet on each sidewall that is 4' wide.

Winter mechanical ventilation should provide 15 air changes or 20 cfm per goat. Summer ventilation should provide 30 air changes or 200 cfm per goat. Draft velocity in winter should be less than 0.6 feet per minute for kids, and less than 1.6 feet per minute for adult goats.

The facility should also provide an environment where daily chores are easy and safe to perform.

Grouping Goats for Management

Goats can be housed in several different management groups including:

- Milking does
- Dry Does
- Bucks
- Newborn kids
- Growing kids (males and females)

Artificial lighting can encourage fall freshening, in addition to the normal spring freshening to assure more uniform year round milk production. House all breeding

bucks in a separate facility downwind from the milking barn, otherwise their odor will give the milk an off-flavor.

Goat Fencing

Fencing, penning, and gates should be 4-5' high for does and 6' high for bucks. Fencing should keep the goats in and the predators out. Fencing options and design include:

- Chain link
- Woven wire or welded wire
- Hog/sheep panel (wire spacing)
- Cattle panel (wire spacing)
- High tensile wire 8-10 strands
- Electrified high tensile 5-7 strands with some wires electrified
- Electrified (psychological barrier) with an offset at shoulder height to keeps goats off fence

The fence for the exercise yard must be strong as goats will lean on it. To deter predators the bottom wire should be 7" off ground. The goats should be trained to the electric fence and gate latches should be goat proof. Use snap hooks on gates as goats are able to unlatch other types of hardware. Some goats will get out of nearly any fence. In this case, place an overhang wire 10-12" toward the inside and top of the fence, supported by offset pieces nailed to the posts. This wire may be electric, although barbed wire is usually adequate.

Feeders and Waterers

Hay and forage feeders should not restrain or trap the goat. Goats are picky eaters and feed should be elevated to keep it clean and not allow it to fall to the ground where it can be trampled and become waste. Feeder design should keep the feed off the floor to also minimize parasites.

A toe board for the goat to place its front feet during feeding helps keep the feed raised. Throat height for does is 18" higher than their feet. Livestock panels with a hole cut out for the goats head work well and are simple to fabricate. Slant bar or keyhole feeders help control goats from pulling out hay onto the ground and trampling it. Grain and concentrate storage should be dry and rodent free. Grain for milking goats is usually fed in the parlor as a convenient way to feed and also to train the goats to enter for milking.

The water system should provide at least 4 gallons per adult goat per day. Each water bowl or 12" of water tank space can provide for approximately 40-50 goats or 50-75 kids. Tanks with covered floats, pails or automatic heated waterers are typically used.

Milking Center

Depending on the number of goats to be milked the milking center can be a simple elevated stand for smaller herds up to an elevated parlor platform for loading small groups of goats. Typically the goats will climb up a set of steps or ramp so that the person milking does not have to step down into a pit. Bucket milking can work fine and can usually milk two animals at one time. As parlors get larger a vacuum line and/or milk pipeline can be placed in the parlor for moving milk to the bulk tank. The milking center should include a clean milk storage room, screened from flies.

A goat milking stand is approximately 20” wide x 48” long and 12-18” high. Milking stands can be made out of wood or steel and include a headlock or method of restraining the goat during milking. Milking parlors are also usually elevated and the platform can be built from concrete or steel. Each goat will need approximately 18” wide and 42” long space with a headlock or restraining system on the front of the stall. The goat platform is typically 36-40” higher than the operator floor to elevate the goat to a comfortable milking position for the operator. Grain is typically fed during milking in both parlors and milking stands.

Starting a Dairy Goat Business

Web Sites and educational resources on housing and facility design

http://hambydairysupply.com/xcart/home.php?cat=16

http://www.caprinesupply.com/

http://hoeggergoatsupply.com/xcart/home.php

http://www.partsdeptonline.com/cgi-bin/store/commerce.cgi

http://www.agric.nsw.gov.au/reader/5445#shelter

http://www.agric.nsw.gov.au/reader/5444#Figure%204

http://www.agric.nsw.gov.au/reader/goat-management-production/goat-fencing.pdf?MIvalObj=18731&doctype=document&MItypeObj=application/pdf&name=/goat-fencing.pdf

http://www.agric.nsw.gov.au/reader/goat-management-production/yard-design-goats.pdf?MIvalObj=18736&doctype=document&MItypeObj=application/pdf&name=/yard-design-goats.pdf

http://www.dairygoatjournal.com/issues/current.html#article3

http://adga.org/facts.htm

http://attra.ncat.org/attra-pub/meatgoat.html

http://attra.ncat.org/attra-pub/goatoverview.html

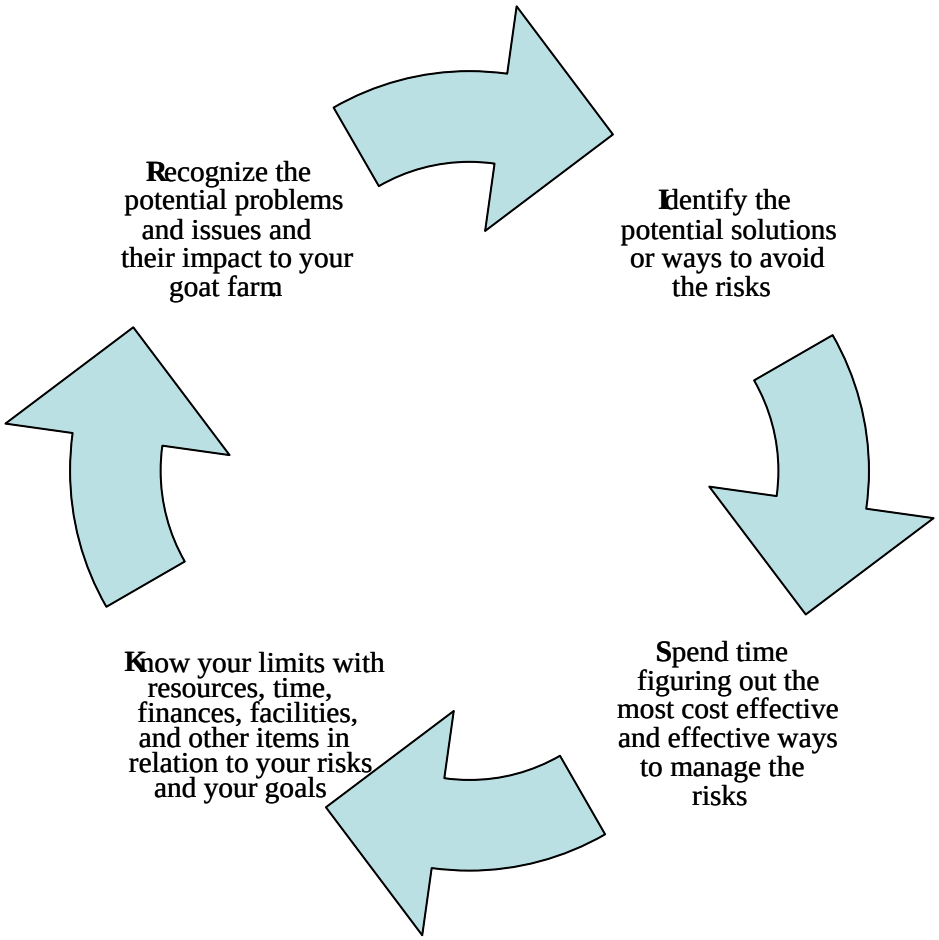
http://attra.ncat.org/attra-pub/dairygoats.html

.

Starting a Dairy Goat Business

Financing Your Farm and Managing Risk

Risk is a big part of financing and it's a big part of farming. Begin thinking about the process of analyzing risk by looking at the following diagram.



Risk can be thought of an ongoing process. You will always be analyzing to calculate where and how you can manage risk in your operation.

Starting a Dairy Goat Business

Some Important Questions to Ask When Looking at Risk

Recognize the potential problems and issues and their impact on your goat farm:

- What are my potential markets?
- What will my expenses be in relation to my income for the farm?
- What production can I realistically expect from my goats?
- What is a reasonable cull rate or death loss rate?
- What are realistic expenses for feed and other items?
- Can my facilities handle the number of goats that I need/want?
- What is my plan if something happens and I need to sell out?
- How do I keep my goats healthy and productive without spending a fortune?
- What is the least I can spend on feed to balance what I need for production?

Identify the potential solutions or ways to avoid the risks:

- Who can help me to figure out ways to cut costs?
- What options are available to cut expenses?
- What can be done to convert a dairy cow facility into a goat facility?
- What types of facilities and operations are possible?
- What options are there for marketing goat products?

Spend time figuring out the most cost efficient and effective ways to manage the risks:

- How much does my family really need to live on?
- What is the total cost for converting buildings (labor, materials, etc)?
- What is the best way to design a facility so that it has easy access and is easy to move the animals?
- What feed options are available and what production is currently being gotten by people who use those options?
- What feeding methods are least labor intensive and still effective?
- Is there the potential to work into an existing operation so that overhead costs can be kept low?

Know your limits with resources, time, finances, and facilities in relation to your risk comfort level and your goals:

- Will goat farming add value to my life that is desirable even if and when it isn't profitable?
- Can I manage the risks to make it worth my time and effort?
- Will cutting corners on facilities be all right for the short and long-term?
- Am I comfortable with and can I commit to the expenses that I need to reduce or cut out in order to help the farm survive in tough times?

Starting a Dairy Goat Business

The Lender's View of Risks

Lenders look at risk as a way to determine the potential for return on their investment. Generally the lower the interest rate offered to a farmer, the lower the risk involved in the operation. While farmers see risks as finding a way to farm, lenders assess risks as a way to determine the potential for repayment. Although this may seem like lenders and farmers are looking at the same risks and assessing them in the same way, many times it isn't. The real key for success is to figure out the potential strengths and weaknesses and manage them in order to balance the operation.

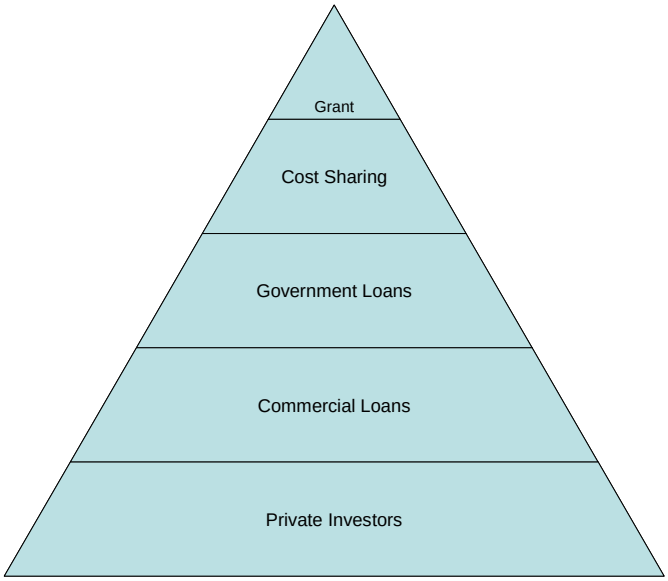
Some farmers may be optimistic in their assessment of success. If a farmer ignores the potential problems associated with a particular action, that can drastically increase the risks associated with the farm operation and that can impact the ability of the farmer to be successful and repay loans. For instance, farmers who don't keep records on the individual goats may not see genetic problems, potential health or breeding issues, production concerns, or other issues that can impact the potential for profitability. Developing a system or method of keeping production records is one part of keeping an operation viable.

Some farmers may be overly focused on one portion of the risk in their operation and less focused on other items. For instance, a goat farmer who is very good with animals may not focus on paying bills. Not paying bills leads to other larger problems. If a farmer recognizes a personal weakness and can address that through (in this case) getting help with finances then that can reduce the risk.

The key to success is looking at all the potential risks and finding a balance among the many options available. What works for one farm won't work for all farms. Avoiding problems or focusing to on one part of a farm operation increases risk. Balance is key.

Possible financing sources

There are quite a few options available for financing farms



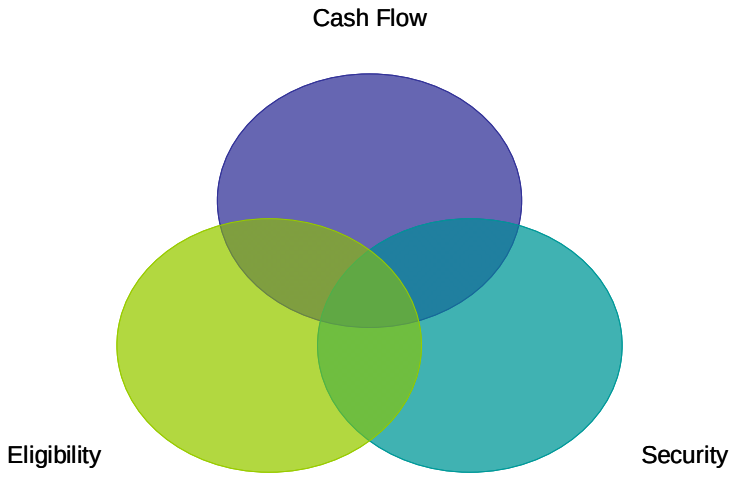
1. Grants: These are relatively new and very limited for goat operations. Grants are desirable because they typically don't require repayment. Information on grants can be obtained through the Farmer's Hotline (1-800-942-2474).
2. Cost sharing: These are relatively new and limited in availability. Cost sharing requires some costs to the farmer but can be useful in certain situations. Repayment generally isn't necessary unless requirements aren't met. Information on cost sharing grants can be obtained through the Farmer's Hotline (1-800-942-2474).
3. Government loans: These are typically low interest loans available through the state and federal agencies. Repayment is required. Information on them can be obtained through the Wisconsin Farmer's Hotline (1-800-942-2474) for state loans and the Farm Service Agency (various locations throughout the

state – call your local FSA office) for federal farm loans.

4. Commercial loans: These include loans from banks and credit unions. Commercial lenders are governed by laws and regulations. Each bank or credit union has their own set of requirements for items like eligibility, cash flow, and security so checking with several may be advantageous. Repayment is required. Contact banks and credit unions (preferably those that deal with farm loans) for more information.
5. Private investors: These are extremely rare and often undesirable because some of the control for the operation typically will be given to the investor in exchange for their financial backing. Possible sources of information on this are breeding magazines and other farmers.

Assessing Risk

In general, all lenders and financers will assess risks based on three general items



1. Eligibility:
Financers will look at an individual's credit history, creditworthiness, experience, education, and other items to determine eligibility. In some cases credit score can play a large part in the ability of an individual to get loans.

Another part of eligibility looks at the adequacy of the facilities and plan. Environmental concerns also play a part in how most lenders look at loans. There have been cases where items like no conservation plan, chemical spills that weren't properly cleaned up, and unsealed underground fuel tanks have impacted the ability of lenders to help customers with loans.

2. Security:
Security requirements vary by the financer. As a part of determining security (equity) levels, appraisals are completed. Usually the appraisals are completed at what is termed "fair market value" or the cost of the item if it was bought or sold on a particular day.

3. Cash flow:
The basis for the cash flow must be reasonable and attainable. That is usually determined by looking at the history of an established operation (generally 3 years) or if it's a new operation, looking at similar size and type operations.

Assessing your operation:

A big challenge to financing right now is that a lot of reliable data isn't readily available for goat operations. While this is changing and data collection and analysis is being done to get some reliable data, it is taking time.

One tool used by many lenders to assess farm operations, is a calculation of the "Sweet 16 Farm Financial Ratios". These ratios show potential strengths and weaknesses of farm operations. The problem with using this method at this time is that it is difficult to know exactly what the numbers should be for a goat operation. For that reason, these numbers may be used to look at progress of an existing operation and assess it from year to year. The "Sweet 16 Farm Financial Ratios" and typical desired levels for farm operations are:

Liquidity

1. Current ratio = total current farm assets/total current farm liabilities
range desirable 1.5 - 2.0

2. Working capital = total current farm assets - total current farm liabilities
range desirable positive, stable

Solvency

3. Debt/asset ratio = total farm liabilities/total farm assets
range desirable less than 0.4
4. Equity/asset ratio = total farm equity/total farm assets
range desirable greater than 0.6
5. Debt/equity ratio = total farm liabilities/total farm equity
range desirable less than 0.66

Profitability

6. Rate of return on farm assets = (net farm income from operations + farm interest expense - value of operator and unpaid family labor)/average total farm assets
range desirable over 4%
7. Rate of return on farm equity = (net farm income from operations - value of operator and unpaid family labor)/average total farm equity range desirable greater than ROR on FA
8. Operating profit margin = (net farm income from operations + farm interest expense - value of operator and unpaid family labor)/gross revenue range desirable 20% - 30%
9. Net farm income
no standard

Repayment Capacity

10. Term Debt and Capital Lease Coverage Ratio = (net farm income from operations + total non-farm income + depreciation expense + interest on term debt and capital leases - total income tax expense - family living withdrawal)/principal and interest payments on term debt and capital leases range desirable greater than 1.25

11. Capital replacement and term debt repayment margin = net farm income from operations + total non-farm income + depreciation expense - total income tax expense - family living withdrawal (including total annual payments on personal liabilities) - payment on prior unpaid operating debt - principal payments on current portion of term debt and capital leases range desirable at least 25% more dollars than scheduled payments on debts & leases

Financial Efficiency

12. Asset turnover ratio = gross revenue/average total farm assets
range desirable greater than 25% - 30%

13. Operating expense ratio = operating expense-depreciation/gross revenue
range desirable less than 65%

14. Depreciation expense ratio = depreciation expense/gross revenue
range desirable less than 15%

15. Interest expense ratio = interest expense/gross revenue
range desirable less than 15%

16. Net farm income from operations ratio = net farm income from operations/gross revenue
range desirable greater than 15%

Reference: Calculating the “Sweet 16” Farm Financial Measures”. (2005). Retrieved January 2, 2008 from http://agmarketing.extension.psu.edu/Business/Sweet16.html

Starting a Dairy Goat Business

Writing a Business Plan

Before anyone starts a business today, they need to develop a plan of action based on expected needs and results from operating a business. This is especially true when beginning a new business such as a dairy or meat goat operation. Anyone who is presently farming and thinks that they can just jump into goats from whatever type of farming they have been doing without careful planning will probably be in for a rude surprise. In this section, we will briefly look at what a business plan is and why you need one and why your lender will demand one.

Why Plan?

Wanting to do something and doing it are two very different things. Too many people attempt to enter a given business based on blind desire. They often overlook the realities of what is rational and possible given their abilities, experience, and resources. Many businesses fail due to the operator's lack of planning to determine what is needed for a successful business.

When properly done, business planning allows us to identify what we have, what we will need, and the likely outcome of our efforts. With good solid planning we will be able to determine if our plans make sense from a financial and personal standpoint. We might find that at this time we cannot enter into the business. In this case, it is better to plan and adjust our goals than go in blind and have nothing but failure and frustration. On the other hand, a good, well-prepared plan not only allows us the opportunity to test the business on paper but to adjust the plan as we identify strengths and weaknesses in the initial business outline. We may have to scale up or down in size, re-evaluate the finances needed, or the intensity of labor required.

Remember that not only will you need to be sold on the plan but you will need to convince others. The most important individuals will be your financial sponsors, whether a bank, Farm Service Agency or other sources. You will be asking them to provide significant capital that will be at risk if the business fails. So, keep in mind that you must sell your plan. What better way to do this than by having considered and evaluated the business to your own satisfaction and have answered these questions:

1) What is the business?
2) How will it work?
3) What will it accomplish and what do we need?

Starting a Dairy Goat Business

A good plan will allow you to present your dream with confidence and with solid, concise facts and supporting information.

With this in mind, let's consider what a business plan is and what needs to be considered in planning.

Elements of a Plan

All businesses are composed of various elements that must be properly balanced to allow us to succeed. As such, both new and on-going businesses must constantly review the assets of the business, their proper mix and use to provide the largest return for your efforts.

Overview: Any good plan should describe the business as it is or as you propose it to be. You will need to identify the scope of the business, and what needs to be done in order to get the business up and running. This should include not only what you want to do but any pertinent information that supports your plan. You must keep in mind that the business will change and so will its needs. This is especially important in the case of a major change in the business (an expansion for example) or in a proposal for a new business. The following business plan outline is loosely based on the proposed farm/ranch business plan format suggested by the American Society of Farm Management and Rural Appraisers committee.

Starting a Dairy Goat Business

SAMPLE FARM BUSINESS PLAN

Farm Name

Owner and/or Operator

Address

Phone:_____

FAX:_____

E-Mail:_____

Date Completed

Developed By Brad Harrison
Farm Management Specialist Feb 2000 Rev Jan 2008

Starting a Dairy Goat Business

Index

e) Fertility plan
f) Cultural Practices
g) Harvesting, Conditioning, and Storage
h) Conservation Plan With Field and Soil Map
i) Chemical Application Plans and Recordkeeping System
j) Equipment and Facilities Present and Future Needs
k) Attachments: Plans, Contracts, Budgets etc.

2. Livestock General Description and Operational Goals
   a) Production and Enterprise Budget Summary
   b) Breeding Program and/or Purchase Plans
   c) Feeding and Forage Management
   d) Health Program
   e) Facilities, Improvements, and Equipment
   f) Waste Management Plan
   g) Attachments: Contracts, Agreements, Lists etc.

3. Other Enterprises Farm or Non Farm Related (Outside jobs or business)

D. Repairs and Capital Expenditures Summary
   1. General Description of Current Situation and Future Needs
   2. Repairs, Sales, or Purchases Planned For The Coming Year, Cost and Revenue
   3. Capital Purchases Trades, and Sales Planned For Coming Years, Cost and Revenue

E. Farm Business Plan (FSA Farm and Home Plan, Finpack, or Other Current and Future
   1. Years)
   2. Balance Sheets
   3. Annual Production with quantities and prices
   4. Family Cash Needs
   5. Operating Expenses
   6. Operating Revenue
   7. Capital Purchases and Sales

8. Borrowing and Loan Repayment

Summary of Business Plan (This portion will be completed after other portions have been done)

Overview of Business and Its Goals

Objectives or Mission of the Business

Goals of the Business

Summary (Two or three sentences that give a picture of the business)

Recommendations or Actions by General Category (i.e. Livestock, Crops, Business)

Conclusion (Where is the business at present and what needs to be done to meet the mission and goals of the business.)

Property Description

A. Property Description and Review of Property and Its Features and Facilities. (This should be a narrative statement of the property and how its components will serve and fit into the operation).

B. Other Pertinent Information Impacting Property Value and Use (Roads, Services, Town, Schools, Markets, Cheese Plants) (Use this section to describe where you are in relation to services and outlets you and your family will need for the business or for the family unit).

C. Attachments of Value

Property Title Description (include a copy of a Deed or other official document which contains the legal description of the property).

Maps: Plat, FSA/NRCS Field Maps, County Zoning if Appropriate etc.

Soil Maps

Government Program Contracts and Crop Program Information

Management Plan

Operating Arrangement and Agreements (Sole Proprietorship, Partnership, LLC, Corp., Share Lease, Cash Rent Etc.; Marketing and/or Production Contracts etc.)

1. Description
2. Special Notes (Planned changes, pertinent estate plans)
3. Attachments (include any incorporations agreements, rental agreements, etc.)

a)_____

b)_____

B. Personnel and Labor (Description of available labor and labor needs, experience levels. Include written job descriptions, if appropriate. Projected labor costs, including benefits, Employee handbook if appropriate.)

1. Attachments: Resumes, Education Transcripts, Bios.

a)_____

b)_____

Note: If you have never put together a resume, now is the time to do one. If you already have one, attach it here. If you haven't had much experience, here is where education transcripts and other skills/knowledge information is extremely important.

C. Production Plan

1. Crop Plan: General description of cropping program and its purpose i.e. feed versus cash sales, if applicable.

a) Production Summary for Year _____

Crop	Acres	Yield/Acre	Farm Use	For Sale	Sales	Expenses	Net Revenue

Notes:

b) Field Plan (Rotation etc.)

Farm	Field ID	Acres	Crop Rotation	Average Yield				
				Corn	Soybeans	Hay	Small Grain	Other

c) Crop Budget summary for year or years covered. Attach any supporting detailed budgets:

(1) Expected Revenue _____

(2) Expected Expenses _____

(3) Net to Farm Operation _____

d) Government programs relating to crops farm is currently or will be participating in and economic impact on farm.

e) Fertility Plan. This should include a nutrient management plan along with soils and soil test information.

f) Cultural Practices. Types of tillage and methods to be used. This may be in your Nutrient Management Plan if included.

g) Harvesting, Conditioning, and Storage Plan.

h) Conservation Plan with field and soils map.

i) Chemical Application Plans and Recordkeeping System.

j) Equipment and facilities—current and proposed, if applicable.

2. Livestock: General description of livestock production system if any in the operation.

a) Production and enterprise budges summary. May attach detailed budgets.

(1) Gross Revenue Livestock_____

(2) Gross Expense Livestock _____

(3) Net Livestock Revenue _____

(b) Breeding Program and/or Purchase Plan. If the operation involves a breeding program as part of the operation, give description of methods and procedures to be used, or in other types of livestock operation the purchasing and or selling plan

(c) Feeding and Forage Management (TMR, Intensive Grazing etc)

(d) Health Program

(e) Facilities, Improvements, and Equipment—current and proposed

(f) Waste Management Plan and methods. (Nutrient Management Plan)

3. Other business enterprises and their budgets. (Custom Work, Rentals etc.)

D. Repairs and Capital Expenditures Summary.

1. General description of current situation and future needs.
2. Repairs, sales, and purchases for coming year. Cost and revenue.
3. Repairs, sales and purchases planned in coming years. Cost and revenue.

E. Farm Business Plan (FSA business plans, Finpack, or Other business forms) For a changing or new business, this should include a start-up year and transition years, and what we would expect to be the resulting typical year once established.

1. Balance Sheet (Net Worth Statement). Minimum of current statement or projected beginning statement for new businesses. May need data from several years past and projected.
2, Annual Production plan with quantity produced, farm use, and sale price.
3. Family Living (Cash) needs.
4. Operating expenses, identified as to what, price, total cost.
5. Operating Revenue, identified as to source, price, and total revenue.
6. Capital Purchases and sales for year.
7. Borrowing and Loan Repayment Plans

Starting a Dairy Goat Business

Writing a Business Plan--A Lender's Perspective

(Adapted from a presentation by Jeff Gruetzmacher, FSA)

Lenders and others will be looking at you and your plan and assessing what are commonly called the 5 C's: Character, Collateral, Capacity, Capital, and Conditions. Let's take a look at each of these.

Character defines who you are. This includes your experience and abilities, and your past dealings with lenders and other farmers. Your ability to demonstrate management capability both in the past and through the completeness of your plans, along with your credit histories is key here.

Collateral: Every lender will expect you to invest in the business. They will look at what you are bringing to the business. In reviewing your business plan, the lender will consider not only what you are providing and asking them to provide but what collateral is being pledged and its value. They want to know their investment in you is secure. Expect the lender to carry out an appraisal of assets.

Capacity to repay is the most critical of the five factors to most banks. The business operating plan needs to show a cash flow that will service all needs. For the lender to have confidence in the plan it must use conservative values in the plan. You need to show that not only can you make a living and keep the business maintained but you will have sufficient funds to make your debt payments.

Capital is the money you bring into the plan. The more you have to invest in the business, means you will carry less debt. That builds confidence in you as a business builder. Increasing owner capital creates a better collateral situation as well as better cash flow for you long-term.

Conditions that relate to lending are important to the lender. What is the purpose of the loan? What will it be used for: operating funds, additional equipment, land and/or animals, or refinancing? What length of loan or loans will be needed? What is the cost of lending to the business? The more credit you use, the more conditions the lender will put on you.

Remember that a plan needs to be complete. It must be realistic. Use conservative values. A well-prepared plan will be invaluable to you, your business partners, and lenders. Keep in mind that the plan may need to be changed or modified to meet changes in the business environment. A carefully documented plan that does not work on paper has little chance of success in reality. Finally, be honest with yourself and others you will be dealing with. Test yourself by doing a reality check on a regular basis.

Starting a Dairy Goat Business

Culls, Kids, and Breeding Stock

As your business grows, you will eventually have excess animals that will be a cost liability to your business. These include bucklings, extra doelings, cull does and bucks. There are several options to deal with this excess that may even allow you to make some money from these animals. Some of the more common ways include:

- **Commodity auctions:** These businesses buy by live weight and grade. Most livestock auctions have an up-to-date website with current and past sale prices, times, and locations. Dairy kids will usually be given a low grade due to larger proportion of bone and fat on the carcass compared to meat kids.
- **Meat goat processors:** Some processors or local butcher shops will purchase direct from the producer, usually at the hanging carcass weight. Hanging carcass weight is generally slightly under 50 percent of live weight for dairy kids. Excessive fat between the hide and meat will be stripped off.
- **Direct market on-the-farm live animals:** This will require an accurate livestock scale for you to determine a per head price. In Wisconsin and many other states, the animal will need to be taken off the farm for legal slaughter.

The purchaser can arrange to take the animal to a custom or state inspected slaughter facility or they may choose to slaughter at their own home or at a friend's if for personal use and not resale.

- **Direct marketing of State or USDA inspected meat:** at farmer markets, local groceries, food cooperatives, through newspaper advertisement or by internet. There is a great deal published on direct marketing meats. Be sure to research carefully and abide by all the rules including transport of meat products, storage, and labeling. Insurance is also recommended and required by most commercial outlets including farmer markets.
- **Breeding stock:** Most purchasers of quality breeding stock will want to review your breeding and health records, pedigrees, and have a veterinarian inspect your flock for contagious diseases. Some states have specific requirements before animals can be imported as breeding stock. Be sure to check with your state veterinarian so your customer is not inconvenienced during shipment.

It is important to understand the needs of the buyer in each situation in order to effectively market your animals and get the best price for them.

Marketing Dairy as Meat Goats

The simplest option is to sell your goats as meat animals at auction or to a wholesaler. If you only have a few animals or if you do not have time or interest in developing your own local market, this may be the most efficient and cost-effective method. It may make sense to find other goat producers with animals for sale so that you can split the cost of transportation to a local commodity auction or wholesaler. During religious holidays, when the demand for goat meat is especially high, auctions may provide a competitive price for live goats and can be just as profitable as direct marketing. It may also be possible to arrange for pick-up by a wholesaler for transport to the larger markets, generally on the East Coast.

Direct Marketing: Selling either live goats or inspected processed goat meat is another option. To do this profitably however, you must understand the nature of the goat meat market. Goat meat is a specialty market that in the past has been based in urban areas, commonly along the East and West Coasts where a higher concentration of goat meat-consuming, culturally diverse families reside. As immigration and secondary migration has increased over the past few years to rural cities and communities in the Midwest, the market for goat meat has also increased across the country. Many Midwestern cities and rural areas with meat or vegetable processing facilities nearby have seen huge increases in immigrant labor and a correspondingly high demand for goat meat. Dairy and produce farms may also employ a large number of workers that prefer goat meat. Remember as you define your marketing strategies that these potential customers may also have family members in urban areas that are frequently willing to drive some distance for the opportunity to choose a live goat from your farm once you have build a relationship with their friend or relative.

Although sales in the health food market are booming on both the East and West coasts (goat meat is lower in fat and cholesterol than even bison or skinless turkey), goat meat is relatively new on the scene for the average Midwest household. Most Midwest goat meat consumers are members of diverse cultural groups, particularly those of Hispanic, Caribbean, Mediterranean, Indian-Pakistani, African or Mid-Eastern decent. Therefore, it is important to research the market potential of your local community and to identify the needs of these diverse families. This includes learning about their special and religious occasions when goat meat is highly valued or required and your sales are likely to be the most profitable. It is also important to understand the type of

goat desired and any special slaughtering conditions required by your customers.

Type of Goat: A variety of goats (young or mature, castrated or not castrated, male or female) are preferred depending upon the occasion and sometimes by specific religious or cultural traditions. Although many Western populations prefer young animals, this is not true for culturally diverse customers. For some traditional menus, the meat is cooked for a long period of time. Tender meat from younger animals will break down in the process and not provide the desired taste or texture. An older, more mature animal is required. Another tradition requires only male animals can be eaten. This limits the customer's ability to purchase processed meat from retailers. Many families will purchase meat that has already been processed for every day meals, but it may still be important for them to choose a live animal for certain occasions to make sure it fits their values and cooking requirements. Special occasions include the birth of a child, turning of age celebrations, weddings, graduations, religious or other holidays.

Periods of High Demand: While goat meat is consumed year-round the majority of these communities, including many Hispanic, Orthodox Christian and Muslim families, goat meat is in even greater demand during certain holidays. A few of these include: *Cinco de Mayo*, Easter and Christmas among Hispanics; *Eid al Adha*, *Eid al Fitr*, and *Ramadan* among Muslims, *Orthodox Easter* among Eastern and Greek Orthodox people, and *Jamaican Independence Day* among Caribbean people. The Muslim religious holidays are based on the Islamic lunar calendar, so the date moves forward every year. *Greek Orthodox Easter*, *Orthodox Christian Christmas and New Year, South East Asian New Year* and various other holidays do not coincide with the Western calendar so it is important to do familiarize yourself with and to track the holidays and religious events of your specific market to determine the most profitable times of the year for selling your live goats or processed meat.

Table 1 on the next page gives some basic guidelines for goat meat preferences. Notice that the information in the table has a great deal of overlap between categories. Your customer may have different preferences just as your neighbor or relative may prefer different meats, cuts and cooking methods than you personally would prefer.

DID YOU KNOW?
Goat meat is lower in fat and cholesterol than even bison or skinless turkey.

Table 1. Guidelines for Goat Meat Preferences

Hispanic/ Mexican/ Mediterranean (e.g. Italian, Greek, Turkish-), Mid-East	Kids 15-40 lbs. live weight. For some occasions milk-fed often called white stomach kids (unweaned without pasture or grain supplementation) are preferred and bring in a premium price in the right market
Hispanic/ Caribbean/ Mexican/ Mid-Eastern, African	60-80 lbs. live weight. Some customers prefer un-castrated bucks. If processed the meat is preferred as either 6-way cut or cubed as bone-in pieces. Older and larger animals (120-200 lbs) are required for some occasions.
Muslim especially Mid-East and East African (e.g. Somali, Ethiopian, Yemeni)	45 - 120 lbs. (60 lbs. optimum), For religious occasions (e.g. *Eid-al-Adha* and *Ramadan*) blemish-free yearlings (no polling or docked tails). This is not important for every-day meals.
Chinese/Korean/Southeast Asian	60-80 lbs. live weight during the colder months

Slaughter: Another important consideration is the slaughtering process. Both Orthodox Christian and Muslim customers may require that the animal be slaughtered according to specific religious dietary rules. Meat that is slaughtered and butchered according Islamic rules is known as *halal* just as meat that meets the specific religious dietary rules for Jewish families is called *kosher*. For these and many other culturally-diverse families, a meal needs to conform to formal religious rules and traditions.

If you are going to serve a diverse community, you may need to find a butcher or slaughterhouse that has or is able to obtain religious exemption so your customer will be assured the slaughter is done properly to their standards.

To assure that the slaughter is done correctly, many customers will prefer to buy a live animal and slaughter it themselves on your farm. They might exert a great deal of pressure on you to allow them to do so. If you are going to allow this, you must be sure that it is legal in your state.

NOTE: This is against the law in Wisconsin and many other states.

If your state allows on-farm slaughtering, you may want to provide some amenities such as a hose with running water, a flat surface to work on and some system to hang the carcass to make the task easier for

customers. You should also make arrangements to dispose of the offal according to regulations in your state. You will be responsible for the humane slaughter of the animal on your property and any injuries your customer may acquire in the process. Be aware that slaughtering of a group of goats for a specific occasion such as a wedding (8-10) or a religious event such as *Ramadan* (1-50 depending on the group) will take a significant amount of time and require some forethought to logistics (e.g. carcass cooling, packaging, waste disposal, accompanying children etc).

Pricing: When selling meat kids at commodity auction or to wholesalers the price is generally set by variables outside of your control such as the buyers that attend the auction the day you sell, the other animals available, whether a truck has additional space to be filled or is out of space etc. Wholesalers will generally already have a customer for the sale and will know exactly how much profit margin they require. Websites can give historical information but that information will not guarantee the price you will receive. It is sometimes possible to call the auction facility before shipping to receive an estimate and to allow the manager time to contact specific buyers that might be interested in your animals. Building a relationship with the auction manager or wholesaler will eliminate some of the risk or surprise about the price received.

The price set by local auctions will also influence the price you can receive for live animals off the farm. There are auction buyers that specialize in purchasing for the culturally diverse market and sell at formal or informal live markets in or near most urban areas. The live animal customer will usually know the market price of goats and have purchase options other than coming to your farm. The customer may want to negotiate to get a lower price or may be seeking a higher quality animal than is available at the live market.

It is important to know the price you want to receive for your animals before a buyer arrives at your door. It might be helpful to print off the auction market summary page or layout your own price list and post it so that you can readily refer to it during the selling process. A price sheet can help bridge language barriers and weaken attempts to lower your asking price. Selling below your production costs is not sustainable. If you anticipate making a number of live animal sales, it is helpful to separate those market animals from your breeding animals or much of your time may be spent saying “no” when your prime breeding animals repeatedly are selected for slaughter.

Determining the price for processed meat is similar to pricing beef or lamb. The cost of production, transportation to a slaughter facility, slaughter and processing fee,

packaging, storage, transportation to retailer or farmers market, promotion and your extra labor needs to be included. In general, a lamb, beef or goat hanging carcass will yield slightly under 50% or a 60 pound goat will weigh 30 pounds after the head, hide, rumen are removed. This same carcass will drop to approximately 30% of live weight as boxed meat. That means that after the meat is cut into standard Western cuts such as chops, roasts, stew and ground, 70% of the live weight of the animal has been lost due to the weight of hide, inedible body parts (head, hoofs, rumen) excess fat and trimmed off bone. When selling Western style cuts, steaks and chop are preferred resulting in a storage freezer full of shanks, shoulder roasts and ribs. The advantage with selling goat meat to the ethnic market is that in general the carcass is either processed as 6-way or as 2-3inch bone-in pieces. Either of these methods results in a carcass yield closer to 50% and is an advantage when pricing and utilizing the full carcass. When selling 6-way or bone-in goat meat, the whole carcass is used and purchased usually by one customer. Detailed cut lists are not required nor is long term meat storage of slow selling cuts.

Price comparison: If a 60 pound kid is sold at auction for $1.50 /lb live weight, the producer will receive $90 minus hauling expenses and the marketing fee.

If the same 60 pound kid is sold as processed meat, the yield will have to be considered. Assuming that the carcass is cut as either 6-way or 2-3 inch bone-in pieces and there is a 50% yield (probably high), the processed meat will have to be $3.00 a pound plus the cost of marketing, slaughter and processing to match the commodity auction price. To keep this example simple we will estimate slaughter and processing at $30 a kid (might be much higher) with no marketing costs. The 60 pound live weight kid might yield at most 30 pounds of processed meat with an additional $1.00 per pound added to cover processing. To match the commodity auction price, the processed meat would need to be sold at $4 a pound. This does not include the additional time required to direct market your animals, costs of labels, hauling of the animals to the facility or the processed meat to the customer or retail outlet. (See sample comparison, **Table 2**, on the next page).Before planning direct marketing strategies, be sure to calculate all your costs and the price you need to set for your meat. Then do some market testing to be sure your customer will pay the price required.

Table 2. Meat Price Comparison

	Auction	Processing
Live Weight	60 lbs.	60 lbs.
	↓	↓
Price (Cost)	$1.50 / lb.	30 lb. yield @ $1.00 / lb = $30 processing costs (Slaughter cost @ $15.00/head plus Processing cost @ $.50 x 30 lb. yield)
	↓	↓
Value	$90 minus hauling & auction marketing fee	$4.00 / lb. x 30lb. = $120 minus $30 process cost = $90 minus marketing, delivery & labor costs

Breeds: Dairy goats such as Nubian or La Mancha tend to produce kids with more meat characteristics than the high milkers such as Saanen or Alpines. There are, of course, enormous differences within each of the dairy breeds, bur as a general rule, Nubian and La Mancha will produce a fleshier kid than the lean, leggy high-performing dairy does. If your goal is to maximize profit from the selling of dairy kids into the meat market, some milk production may have to be sacrificed by choosing what is often called a dual milk-meat breed. These does may also do better on pasture if your milk market fits the grass fed niche.

Another method to increase the quality of your meat kids is to breed low-producing does to a meat goat breed buck such as a Boer or Spanish. This will give the offspring more meat-goat characteristics such as a meatier carcass and make them more valuable. This is also a good way to utilize low-producing does that you may not want to breed into your dairy herd's gene pool. But whether your kid is from dairy or meat genetics, be aware that goat meat does not carry fat within the muscle as with beef or lamb. Fat collects under the hide and in the body cavity around the organs. This fat has no value to the majority of the customers for goat meat. The fat will be discarded. Pushing your kids to grow faster on a high grain diet is unlikely to pay off when direct

marketing. Your potential customer will not return if your kids or mature goats are fat. If in double, have one of your kids slaughtered and visually examine and weigh the fat content.

Selling Goats for Breeding Purposes

Another possibility to sell your extra goats is to market them as breeding stock. To be able to do this you must put a strict emphasis on careful breeding practices, record keeping and maintain a disease free flock. Other producers will pay high prices for animals from a line of high-producing does to improve the quality of their herd but they must be able to tell that their investment is a good deal and that the new additions will not cause health problems in the receiving flock.

You must establish a meticulous breeding program on your farm if you wish to sell your goats for breeding purposes. You must breed high-producing does with bucks from a high-producing line, or a breed with good component characteristics such as butterfat and protein content. It is also vital to keep careful records of your animals. This includes genetic records, health records, and milk production and component records. There are many software programs that allow you to track this information relatively easily. This will allow potential buyers to see exactly what they are buying when choosing breeding stock. These methods can even be useful when selling young bucks if they are from a high-producing line because they generally carry the genes for high production and can be an effective way to raise a herd's production quickly. You may also want to consider showing some of your goats if they are a registered breed. Raising good breeding stock can be time-consuming but good breeding animals can be sold for higher prices. For many goat dairies, the sale of breeding stock represents the difference between profit and loss for the operation, especially in times of high feed and energy costs.

As your dairy goat business develops and expands, you will inevitably end up with excess animals that do not contribute to your dairy income. With careful planning these animals do not have to be worthless and can contribute to the financial success of your farm.

Starting a Dairy Goat Business

Producing High Quality Milk

Introduction

Dairy products are nutritious and healthy foods that are frequently consumed by children and consumers have high expectations of dairy producers. Consumers expect that the farmers will humanely care for their animals. They rely on dairy farmers to use production practices that minimize animal disease, maximize animal well-being, and exclude the possibility of adulteration of the final product.

Most consumers are far removed from the realities of farming. They depend upon government regulations and the integrity of the animal caretakers to produce high quality, healthy dairy products. Successful dairy producers recognize this trust and strive to manage their goat dairies to meet these high expectations. Fortunately, when producers use management practices that result in the production of high quality milk, they also increase the probability that they will be more profitable.

High quality milk is hygienically harvested from healthy does, contains few bacterial colonies or white blood cells ("somatic cells"), and is free of additional adulterants (such as antibiotics, water, manure or dirt). All producers should have a thorough understanding of how to implement best management practices that result in production of high quality milk.

Defining and Regulating Milk Quality

Milk is a highly regulated product. Most of these regulations were created to ensure that only safe milk is sold to consumers. Wisconsin regulations about production practices related to milk quality are based on the Pasteurized Milk Ordinance (PMO) and can be found in regulation ATCP 60 (Wisconsin Administrative Code, available on the internet).

For regulatory purposes, milk quality is defined based on the following characteristics: the number of bacterial colonies and somatic cells present in the milk before processing; the absence of antibiotic residues or other adulterants; the absence of off-flavors or unusual smells; and conformance with required temperature standards.

Regulations about Bacterial Counts of Raw Milk. All dairy producers must have a valid state license obtained from the Department of Agriculture Trade and Consumer Protection. Only pasteurized milk can be sold in Wisconsin. Milk is a great growth media for bacteria and pasteurization is required to prevent the spread of important human diseases (such as tuberculosis, listeriosis, salmonellosis, and brucellosis). Pasteurization does not sterilize milk but

simply reduces the number of colonies of bacteria to negligible numbers. The effectiveness of pasteurization depends on the number of bacteria that are initially present in the milk, so the government has defined standards for the number of bacteria that are allowed to be present in the milk before pasteurization. The regulatory measurement of bacteria in milk is called the standard plate count ("SPC"). The SPC of milk produced from a farm with a Grade A milk permit must be less than 100,000 colony forming units per ml (cfu/ml) and the limit for Grade B milk is less than 300,000 cfu/ml.

Regulations about Somatic Cell Counts of Raw Milk. The term "somatic cells" refers to body cells that are found in milk and the number of these cells is referred to as the "somatic cell count" (SCC). A few somatic cells are old epithelial cells from the milk secreting tissue in the udder but most are white blood cells that migrate into the udder, generally in response to infection. Regulations require the SCC of goat milk to be less than 1,000,000 cells/ml.

Regulations about Antibiotic residues in Milk. When antibiotics are found in milk, it is considered to be adulterated and is unfit for human consumption. The purpose of this regulation is to prevent people with allergies to antibiotics from inadvertently becoming exposed to small amounts of antibiotics in dairy products. The most common reason that antibiotic residues occur is simply human error when milk from a treated doe is erroneously mixed with milk from healthy does. All milk is routinely screened for the presence of antibiotic residues and the occurrence of a residue will result in large financial penalties. Repeated violation of this regulation can result in loss of the dairy permit.

Regulations about Temperature. To keep bacteria from rapidly growing, milk must be cooled rapidly and kept cold while stored on the farm. Within 2 hours of milking, the milk temperature must be less than 45 degrees F (Grade A) or less than 50 degrees F (Grade B). When freshly harvested (warm) milk is mixed with cooled milk from a previous milking, the temperature must be less than 50 degrees F within 2 hours.

Preventing and Managing Mastitis

Mastitis (inflammation of the udder) is one of the most important and common diseases of milk producing animals.

> Most studies have indicated that about 30% of does experience some form of mastitis sometime during their lactation.

Almost all mastitis is caused by bacteria that are able to enter through the teat end and infect the milk secreting tissue in the udder ("secretory alveoli"). Each udder half is completely separated by tissue, therefore each half can become independently infected with bacteria. The mastitis-causing bacteria injure the secretory alveoli, thereby resulting in decreased milk production. Mastitis can have an important impact on herd productivity. One study (Leitner et al., 2004, J Dairy Sci 87:1718-1726) demonstrated that udder halves with sub-clinical mastitis produced 0.7 lbs less milk per day and yielded 11 percent less cheese curd as compared to uninfected udder halves.

The type of mastitis that a doe experiences is defined based on the severity of the symptoms. If the milk produced from an infected udder has an abnormal appearance or if the doe is obviously ill then the doe is considered to have "clinical mastitis." Clinical mastitis can make goats very sick but, fortunately, it doesn't occur frequently. Acute mastitis in goats can sometimes result in the death of the doe or gangrenous changes in udder tissue (the udder may turn hard and black). A veterinarian should be called immediately if the doe has a fever, the udder swells up, becomes cold and discolored or if the milk begins to look like serum or is mixed with blood. Does may also experience chronic clinical mastitis. This form of mastitis is not likely to result in death but the milk is frequently abnormal in appearance and the udder may be lumpy or very firm. It is very difficult to successfully treat chronic clinical mastitis in does and culling is usually recommended.

The term "sub-clinical" mastitis refers to mastitis infections that are not severe enough to make the doe sick or make the milk appear abnormal. In fact, when a doe has sub-clinical mastitis, the milk appears perfectly normal to the human eye. Milk from does with sub-clinical mastitis can be sold so long as the bulk tank milk (co-mingled milk) from the herd does not exceed the SCC standard. This form of mastitis is the most common type that most producers will experience and almost all producers will have some does affected with this disease. The only way that sub-clinical mastitis can be diagnosed is through testing of the milk. Milk produced from a gland that has sub-clinical mastitis has greater numbers of somatic cells and a diagnosis of sub-clinical mastitis is often based on the presence of large numbers of these cells. Somatic cells are composed of a variety of cells but most of them are white blood cells that are attracted into the infected udder to fight bacterial infections.

Not all methods used to count somatic cells in cow milk are accurate for counting somatic cells in goat milk. The most accurate methods for counting somatic cells in goat milk are methods that specifically

identify DNA in the cells. Milk from goats with sub-clinical mastitis almost always has a somatic cell count ("SCC") greater than 500,000 cells/ml and, depending on the type of bacteria causing the infection, the SCC may exceed several million cells/ml. The SCC of goats is usually greater immediately after kidding, when the doe is in "heat" and before dry off. The occurrence of sub-clinical mastitis reduces milk production and herd profitability so monthly testing of milk for SCC is an important management tool that all producers should use.

If the SCC of a doe exceeds 500,000 cells/ml it is important to consult with a veterinarian and to submit aseptically collected milk samples to a reputable veterinary diagnostic lab.

> Some bacteria that cause mastitis self-cure, others develop into chronic infections and some do not respond to antibiotic treatment.

Therefore, prevention and treatment of mastitis is more effective when there is a proper diagnosis of the most common types of bacteria causing mastitis on each individual farm. Sub-clinical mastitis can also be diagnosed by recovery of known mastitis-causing bacteria from milk samples but the failure to recover bacteria from a single milk sample doesn't necessarily mean that bacteria aren't causing mastitis.

Almost any type of bacteria can cause mastitis but there are several types of bacteria that are commonly associated with goat mastitis. Coagulase-negative staphylococci ("CNS") are the most frequently isolated pathogens that cause mastitis in goats. Other common mastitis pathogens include *Staphylococcus aureus*, and a variety of Streptococci. The CNS is basically a family of Staphylococci that live naturally on skin surfaces and cause opportunistic infections of the udder. Proper teat disinfection before milking and the application of post-milking teat dips are helpful management practices that can be used to minimize the exposure to these organisms. The use of commercially available long-acting intra-mammary antibiotics ("dry off therapy") is recommended at the end of lactation for treatment of existing sub-clinical infections and to prevent new infections during the early dry off period. The use of these treatments must be under the supervision of a herd veterinarian.

Occasionally, udders of goats can become infected with Caprine Arthritis Encephalitis Virus (CAEV). Along with other symptoms, this virus can cause increased SCC and reduced milk yields. It is important to consult with your herd

veterinarian to develop a control program for this viral disease (see the chapter on herd health).

Preventing Antibiotic Residues

Milk is routinely screened for the presence of tiny residues of antibiotics that have been used for treatment of sick animals. Intra-mammary treatments given in one udder half will be absorbed and diffuse into the non-treated half so all milk from that doe must be discarded until the appropriate withholding period has passed. While it is obvious that antibiotics infused into the udder can cause residues, even antibiotics given under the skin, in the muscle or in the veins diffuse into the udder and are excreted in milk. Therefore, it is extremely important that all antibiotic treatments given to a doe be appropriate for treatment of lactating animals. It is also essential that all treatments are recorded in a permanent record and the doe must be obviously marked so that her milk will not be included in milk that is sold for human consumption. Milk from does that receive treatments cannot be sold until the appropriate withholding period has passed. Any treatment that is not specifically approved by the FDA for use in goats and has a labeled withholding period can only be used under the direction of a herd veterinarian (this usage of antibiotics is called "extra-label"). When "extra-label" treatments have been administered, the milk should be checked for antibiotic residues using a test kit. The most commonly used antibiotic residue test kits validated for bovine milk have been shown to be accurate for use with goat milk but not all antibiotics are detected with each kit so it is necessary to match the proper test kit with the antibiotic that you are trying to detect.

Minimizing Bacterial Counts in Milk

Milk produced from healthy udders will contain very, very few bacteria and the presence of more than 10,000 cfu bacteria in milk is indication of problems with the milking process. Bacteriological contamination of raw milk can occur from 2 basic sources: 1) organisms can contaminate milk from environmental sources (especially contamination during the milking process) or 2) from shedding of mastitis organisms from within the udder. Bacterial numbers in bulk milk will not typically increase from the contribution of non-mastitis bacteria from the teat skin of a healthy mammary gland. If the SPC exceeds 10,000 cfu/ml, the investigation should focus on problems with cooling of the milk, cleaning of the milking system (such as water temperature or buildup of milk residues), or contamination of milk from dirty udders or milking equipment.

Proper Milking Procedures

The use of a proper milking routine is extremely important to minimize bacterial contamination of milk, ensure proper milk letdown, detect and discard abnormal milk (so that it doesn't enter the human food chain) and prevent mastitis. Milking regulations specify that teats must be disinfected and abnormal milk discarded before attaching the milking unit. Consistent implementation of a milking routine that includes *fore-stripping*, *pre-dipping*, *adequate drying*, *timely application of the milking unit* and *effective post-milking teat disinfection* should be the goal of all farms that harvest milk for human consumption.

Effective pre-dipping. The objective of pre-milking teat disinfection is to remove bacteria that contaminated the teat while the goat was in her housing environment. There is no question that the most effective method to disinfect teats is to pre-dip using an approved, commercially formulated disinfectant. The use of pre-dipping using iodine has been shown to effectively reduce standard plate counts. It is important to recognize that sufficient time and contact of the disinfectant with the teat is necessary to effectively reduce the number of bacteria on teat skin. Teat dips need to be properly formulated, completely applied to debris-free teats, and allowed sufficient time (at least 30 seconds) for action before removal.

Fore-stripping. The examination of milk before attaching milking units is necessary to ensure that all abnormal milk is diverted from the human food chain and should be a standard practice on ALL farms. Teat cistern milk contains the highest concentration of bacteria of any milk fraction and the use of fore-stripping may reduce bacterial numbers found in milk for some farms. Fore-stripping is adequately performed when 2-3 streams of milk are expressed and is the most effective means to ensure adequate milk letdown.

Effective drying of teats. Effective drying of teats is probably the most important step in hygienic pre-milking preparation. A study reported that cow dairy herds that dried teats had bulk tank SCC values 44,000 cell/ml lower than herds that did not utilize this practice (Moxley, et al., 1978) and it is likely that the same response would be seen in goat herds. Both cloth and paper towels are acceptable but only one towel per doe should be used to dry teats. If cloth towels are used they should be disinfected by washing with bleach or very hot water and drying at high temperature in an automatic dryer.

Timely Application of the Milking Unit. One objective of the milking routine is to attach the milking unit to well-stimulated does that have achieved milk letdown, thus maximizing milk flow and minimizing the unit attachment times. The time period

between stimulation of the teat (usually performed by fore-stripping or vigorous drying of teats) and unit attachment is often referred to as the "prep-lag" time. It takes about a minute for oxytocin to travel from the gland that produces it to the receptors in the udder. The prep-lag time should be about 45-90 seconds to ensure that proper milk let-down has occurred.

Effective post-milking teat disinfection. Post-milking teat dipping is one of the most highly adopted practices in the dairy industry and it is the final hygienic defense against infection after milking is completed. The objective of post-milking teat dipping is to destroy the contagious mastitis pathogens that are present in the milk film left on the outside of the teat after milking before they can infect the udder. All herds should practice teat dipping and at least 75% of the teat should be covered after application.

Summary

All dairy producers should be aware of the appropriate regulations for milking. Producers should have goals for milk quality and keep records that allow them to evaluate the amount of both sub-clinical and clinical mastitis in their herds. Each producer should develop a relationship with a local veterinarian and work with them to develop a milk quality plan.

Starting a Dairy Goat Business

Marketing Goat Milk

Marketing of your milk plays a key role in the overall picture of producing your milk. BEFORE you produce one drop of milk you must have it sold. To build your facilities, purchase your herd, fill the bulk tank and then look for a market for your milk is too late and will result in financial disaster. You must find a buyer before you put any money into your goat dairy. When you do find a buyer the next step is to calculate whether or not you will be able to cash flow your operation.

The Cost of Production

Contact your county agricultural extension agent or a farm trainer from your local technical college. Their services are provided to assist farmers with these types of calculations. They will be able to help you list all of your expected costs for producing 100 lbs. of milk. In this process include all expenses that must be covered by the milking herd. Also, make 3 and 5 year projections. Most of the plants in the state allow their farms to grow to whatever volume of milk the farm desires but this question must be asked prior to expanding. Can you cash flow your operation on paper?

Depending on your location in the state you may have several options as to which plant may purchase your milk. Compare prices. Which one will give you the best price for your milk? Each plant has variables that must be analyzed. To properly compare prices, it is necessary to use a typical farm's butterfat, protein, SCC and PLC results for a complete year. These numbers are used with each pay formula to understand which price is best for your planned milk production.

Look at All Options

You must look at every possibility to increase your profits. Look at your milk first. Are you producing a quality product? All plants pay a base price for the milk and they pay on butterfat and protein. Are your components (butterfat and protein) above the averages? Some plants also pay a bonus on low SCC and low plate counts (PLC). Set your goals to stay in the bonus range for these.

Why may you get paid more if you have high components and low SCC? The cheese plant gets a higher yield of cheese per pound of milk, longer shelf life for the cheese, and better tasting cheese, thus making more money for them and in return a higher price paid to you for the milk. It is in your best interest, as well as the plant's to keep your SCC as low as possible.

The bacteria (plate count) in the milk can affect the actual production of the cheese. **Plate count is directly related to sanitation practices, milking procedures, temperature of the water used and the proper cooling of the milk.** Plate count is directly under the farmer's control.

Starting a Dairy Goat Business

Producing quality milk is the key to maximizing on the best price for your milk. Without quality milk, the cheese maker can not produce a high quality cheese, and if the cheese is not of high quality, the consumer will not purchase it.

Cull Does

Maximize your options for cull does. Where are the market opportunities for them? Can you sell them directly from your farm or is the livestock auction sale barn your best option? If your best option is to sell through a sales barn, is there a particular time of year or day of the month that will give you the top dollar for your doe? Selling a cull while she is in good physical condition will greatly improve the price received.

Breeding Stock

If you have more replacement does than what you need, can you sell them as breeding stock? When marketing these does or bucks what sets them apart from others in the market? What is your marketing angle to command the top dollar?

Have you had your herd tested for Johnes, CL and CAE? Do you heat treat your colostrum and pasteurize all milk fed to kids? Preventative measures like these may be a marketing angle for you.

If you want to sell your does as replacement milkers, are you on a testing program that would give milk records for marketing purposes? Records could be a major marketing angle.

Are your does or bucks registered? Do you keep track of bloodlines? Do you have proof or production on the bucks that you have used? When selling breeding stock, you need to evaluate your stock and decide what makes them valuable to someone else in the dairy goat industry.

The best milk price is in the winter. Getting does bred for fall freshening can be challenging. Can you breed your does for fall and sell them as fall fresheners? This would certainly command top dollar for your does.

Another point to keep in mind when selling does is this---whether you sell them at two months of age or 12 months of age, their genetics have not changed. Genetically, the two month old kid is worth just as much as a twelve month old. The only difference is you have fed the 12 month old doe for a longer period of time.

Meat Kids

Buck kids may be overwhelming at times and seem like a liability but, don't give them away. Charge at least something for them. Research your markets. When is there a demand for meat kids? How can a meat kid become an asset to your farm? Raising these kids to market weight must be researched to assure your market will return

a profit after all feed and other costs are paid.

The Manure

What is not used for fertilizer for your fields should be used to bring in additional revenue.

- Will a neighbor trade some hay for the fertilizer value of your manure?
- Composting your manure and selling it as compost to garden centers and home gardens may be an option.
- Pelleting your manure and then using it as fuel for pellet burning stoves may be another option.

Added Value

What other resources are available to you to bring in additional income to your goat dairy? Analyze your labor availability and financial resources. Are there other possibilities for income on your goat dairy such as:

- A farm store
- Having some of your milk made into a value-added product at a nearby plant
- Farm tours
- Some other project that would complement your goat dairy.

The Three-Legged Stool

You need to look at the overall picture in the dairy goat industry. One leg of the stool is the top quality milk being produced by the dairy goat farmer. Another leg of the stool is the added value of the milk. This may be the cheese maker, the milk bottler, or another processor. But all processors must work to produce a quality end product form the quality milk. Still another leg of the stool is the marketing of the product. If any of the three legs of the stool are broken the stool comes crashing down.

It is just as important for each dairy goat milk producer as well as the processor to take an active role and interest in the marketing of the product.

If the product is not marketed for the top dollar, the producer does not realize his maximum profit.

Meet the Consumer

A key to marketing is meeting the consumer and understanding what the consumer wants and needs. For example:

1. An excellent chance is volunteering in the Goat Products Booth at the Wisconsin State Fair. It is a great opportunity to meet the consumer and understand what is important about the milk or other products you produce.

2. Another way is to work with the cheese maker where you sell your milk to encourage public visits to your farm to help promote the great goat milk products.

Remember: Production must be driven by the market. If the production of milk exceeds demand for the products, there is no reason for the plant to pay a sustainable price for your milk. But if demand is greater than the supply of milk, you will be paid an adequate price for the milk.

In Summary

A Quality Product + a Quality Process + Quality Marketing = your best chance for success.

Production needs to be market driven.

Working with Your Processor

Keeping the Lines of Communication Open

The relationship between the dairy processor and the dairy producer is perhaps the most important in the dairy industry. It should be acknowledged that everyone involved in the industry is both a customer and a supplier. The producer supplies their customer, the processor. The processor in turn supplies their customer, the consumer. Mutual success can only be achieved when the processor and the producer are working toward the common goal of satisfying the consumer. In working together toward this common goal, the importance of effective communication cannot be stressed enough.

There are two factors which the processor and the producer must consider in order to satisfy the consumer and experience success in doing so - the need to supply a quality product and the need to operate a profitable business. The consumer clearly wants to purchase a quality product. However, production of this quality product must be economically feasible for both the processor and producer or neither will be successful.

The quality of milk is the easiest to understand and control. Milk fat, protein levels, plate counts and somatic cell counts are the main quality factors. The use of science as a tool to measure these quality aspects of the milk makes this step straight-forward. With the support of regulatory guidelines, the milk is sampled and analyzed on a consistent and regular basis.

The challenge in this part of the system comes in communicating the results to the processor, the producer and the regulatory agency in a timely fashion.

REPORTING TEST RESULTS

- Electronically, for those with internet access.
- Regular mail system – not the most effective method if there is quality issues which need immediate attention.
- The milk hauler – probably the most efficient and effective method providing they receive the results in a timely manner.

Once the results are received, the next step in communication is to address any quality issues. This step can become stressful for both the producer and the processor, especially if there is the pressure of a producer being issued a 'stop sale' order in which case they are prohibited from shipping the milk until the quality is proven, by use of repeated analysis, to be improved. No shipment of milk affects milk income which certainly creates an unpleasant environment for both the processor and the producer trying to communicate on these issues.

It may be perceived in these situations that the producer is experiencing the most pressure because their milk is not going to be shipped. However, the processor shares the pressure in that the quality and volume of milk which had been committed to a certain product line is no longer available. Consequently, consumers are not going to receive the product they desire.

Communicating in a calm, clear and concise manner is critical during these times of increased pressure in order to resolve the issues and move forward. If the hauler plays a key role in delivering the initial reports, the communication must occur directly between the producer and the processor in order to resolve milk quality issues.

In order to facilitate this communication, it is important that the processors provide the producers with personnel contact information and a plan of steps to be taken when issues arise.

> The economics of producing a quality product can be a difficult and uncomfortable topic of discussion between the processor and the producer.

Producers are at the mercy of unpredictable and adverse weather conditions, fluctuating feed costs and livestock disease.

Transportation fuel costs have a huge impact on both the producer and the processor and are beyond the control of either party.

Often it is assumed that the processor has the ability to simply raise the price of their product to the consumer and as a result pay

the producer more for their milk. This is not the reality of our market economics today.

The food industry is one of the most competitive industries in the world. Today's market consists of large grocery chain conglomerates, many of whom operate on a global basis. Grocery store shelf space has become the most demanded and expensive real estate on the market. As with all real estate, the price is not always indicative of the value of the space but rather what the market will bear. There are significant costs involved in getting a product on the shelf. The costs are above and beyond those already incurred by the processing facility for ingredients, equipment, labor, packaging, utilities and transportation.

Cutting costs is always a consideration for any business or operation, especially during adverse economic times. However, extreme cost reductions usually result in quality reduction as well. Ultimately, if consumers do not receive the quality they expect, they will not purchase the product and the market is lost to both the producer and the processor.

When it comes to costs and pricing, discussions between the processor and the producer can become strained. Again, it is critical during these discussions that both parties maintain direct, calm, clear, concise communication in order to achieve success.

The quality of a manufactured dairy product is only as good as the quality of the milk as it leaves the farm.

Exit Strategies

What If It Doesn't Work?

You have heard the old saying, "..the best laid plans sometimes go astray." In the midst of the excitement and energy of developing a farming business, most people don't even consider the possibility of the business just not working out. A key here is to be prepared and to recognize that just because the business didn't work out, that doesn't mean you personally are a failure. It takes ingenuity and energy to assess situations in distress and courage to take the necessary steps to address a potential business failure.

One of the toughest issues to address is if and when to quit farming. This question is easier to answer if you have a written exit strategy. An exit strategy should be part of your business plan. Think about what factors would make you consider exiting the business:

1) What if your health or the health of family members deteriorates?
2) What if you lose your passion for the business?
3) What if financial or personal stresses change how you view the business?
4) What if it's just time to retire?
5) What if you'd really rather be doing something else?
6) What if other opportunities present themselves?

Undoubtedly, a person who has invested a lot of time and energy into a farm will find it difficult to say they don't want to farm anymore. However, changes often happen that you can't control. Markets fluctuate. Accidents happen. Interest rates rise. You or a spouse or other person vital to the business leaves or becomes disabled. Development pressures may impact the farm's viability.

The hardest part of exiting is deciding to do so. Generally, once a decision is made, the next steps usually fall into place rather quickly.

When you create your business plan, think about what factors would make you consider exiting the business. If your business plan has an exit strategy already outlined, then start to seriously put the plan into action. Make sure that your current situation and your needs can still be met using the plan. If you don't have an exit plan, then you need to make one that includes contacting your lender/financer, potential markets, and other resource people.

A good starting point is to inform your lenders. If there are liens or mortgages involved, they can advise you about the impact of sales and the use of sale proceeds. Keep in mind that your future credit could

be impacted if you aren't careful about following the agreements you made with lenders.

The timing of a sale can make a big difference. There are fluctuations in goat and real estate markets that could help you to decide the best time for your sale. If the farm operation is being sold to someone else, then it can be a matter of determining the best day and time for the transfer to take place. Contacting sales barns and talking to other farmers is a couple of ways to determine potential market value for your livestock, machinery, and/or real estate. Another method would involve researching values from sales in the area.

Moving On

Working through a major life-changing experience like leaving farming requires time and effort and will probably come with some pain and regrets. These are normal feelings. Often, people are uneasy and anxious because of the uncertainty the future holds. Farming carries with it a certain rhythm and routine that is comfortable. Now you face a multitude of questions which will require a new look at so many basic issues. Where will we live? How will we make a living? Will people think less of me? Will I feel like a failure? How do I make the adjustment to a different way of life? Where can I go for guidance? These are questions any farmer may have as he/she looks at moving on.

Remember one thing. You are not the first person in the world to face this difficult transition. Sharing these concerns with your family, trusted friends, other former farmers, and/or professionals will help you sort through the process. Being able to talk about how leaving the farm affects you and your family will help you make the change.

Utilize any state and local resources available to help you find employment and other support that you need.

Farmers who leave the business are often sought after as employees in farm-related businesses. Employers know that farmers are hard workers and have a multitude of skills which are transferable to other industries. In fact, your farm background of hard work, ingenuity, organization, independence, and problem solving are often the very qualities lacking in other job sectors. These are all qualities highly valued by the astute employer.

On the next page is one exercise that may help you move through the process.

Three things I am really good at: (such as repairing machinery).

1. _____
2. _____
3. _____

Three things I really would not like: (such as sitting at a desk all day).

1._____
2._____
3._____

APPENDIX A-- Checklist to Start a Goat Dairy

This checklist will serve as your reference as you study and gather information on the feasibility of a dairy goat business for you. Doing this research up front will help you when it's time to develop your business plan. You will learn a lot during the process. You will develop a better sense of what will work best for you and the time and effort you put into research will definitely impress both your processor and your lender. Filling out this checklist will show you are not afraid of paper work, a necessary task for any successful business. And it will be easier to remember with a paper record instead of trying to keep everything straight in your head.

A. Make a list of the reasons why you want to start a goat dairy. Be sure to consider the following factors: previous farming experience; previous business experience; work experience; what you enjoy doing; what you are good at.

Reasons for starting a goat dairy:

1._____
2._____
3._____
4._____

B. Next, have someone you trust review your reasons and give you feed-back. That discussion may generate additional reasons pro and con. Jot down notes from that discussion below.

1._____
2._____
3._____

C. Visit at least 15 goat dairies. This will take time, but will be invaluable. You will see 15 different ways to operate a goat dairy. Be looking at each one for tips from the producer and pointers you see that you would like to utilize and that would work for you on your farm. List each farm below, making notes on what features of each you would like to see on your own farm:

Farms visited:

1._____
Special notes:_____
_____
2._____
Special notes:_____
_____
3._____
Special notes:_____

4._____
Special notes:_____
_____
5._____
Special notes:_____
_____
6._____
Special notes:_____
_____
7._____
Special notes:_____
_____
8._____
Special notes:_____
_____
9._____
Special notes:_____
_____
10._____
Special notes:_____
_____
11._____
Special notes:_____
_____
12._____
Special notes:_____
_____
13._____
Special notes:_____
_____
14._____
Special notes:_____
_____
15._____
Special notes:_____
_____

D. Ask other goat dairy owners what worked for them and what they would have liked to do differently. Make a list of positive ideas from these discussions.

1._____
2._____
3._____
4._____

5._____
6._____

E. Make sure you have a market for your milk.

__ How far is your farm from a processing plant?
__ Is your farm on an existing milk route?
__ Have you contacted the plant to see if they will take on a new producer?

F. Research local processing plants, their location and their policies for buying milk.

Plant Name	**Miles From Farm**	**Charges for Pick-up and Hauling**	**Your Cost per CWT for hauling**
1.			
2.			
3.			
4.			

G. Research possibilities for buying an existing herd that may come with existing milk-buying rights from a cheese plant.

__ Talk to plant-field representatives
__ Talk to other producers
__ Join the WI dairy goat producer listserv at http://groups.google.com/group/goatlist

H. Consider getting only a few goats to milk for your own use if you are not fully committed yet or have not put enough planning into starting a full-fledged dairy

__ Learn to make soap, creams, lotions
__ Experiment with making food products
__ Go through at least one kidding season; then assess how the season would go if you had 100 kids; 200 kids; or even more

I. Find a mentor or work on an existing goat dairy.

__ Do you have goat dairy experience?
__ If yes, list skills you have developed that will serve you well on your own farm:

_____ _____ _____ _____

__ Find an experienced producer to work with or who is willing to be your mentor
__ Make a list of problems encountered during kidding, breeding and other difficult situations. _____ _____ _____
_____ _____ _____ _____
__ Plan how you would address the problems on the list. Write down your ideas.
_____
_____
_____
_____

J. Try to carry a low debt load.

__ Do you have equity to invest?
__ Do you plan to grow your herd from within?
__ Do you plan to start small?
__ Will you depend on off-farm income until your farm income is sufficient and stable?

K. Develop a business plan and have some knowledgeable people review it.

__ Prepare a balance sheet, listing all your assets and liabilities
__ Prepare a projected cash flow statement (lenders will expect to see conservative figures here. Don't expect to produce 8# of milk per doe per day the first year. Most lenders feel more comfortable with 5# or maybe 6#).
__ Have an experienced producer, lender or other expert review these documents
__ Write a brief narrative of your farm and your reasons for believing you can run it as a profitable business. Everything you do to complete this checklist will help you write your narrative.

L. Research the management side of the operation. This includes:

__ Animal Selection—How will you select your animals? What features will you look for? What records will you require from the seller? How will you prevent co-mingling of animals bought from different sources until you are sure they are all healthy?
__ Genetics –Production, longevity, other traits, breeding
__ Animal Care—Herd health program, daily inventory (watching goats), clean water
__ Animal Housing—Adequate space, ventilation, flow into milking, feeding, areas; separate spaces based on size; age
__ Feeds and Feeding—nutritious, tested feeds, free from contamination in sufficient quantity to keep animals vigorous and producing
__ Milking Procedure—utilizing best management practices recommendations (see BMP publication at www.wdga.org)
__ Milk Equipment—clean and sanitary; proper vacuum checked regularly; all equipment checked regularly by authorized service provider
__ Finances—Keeping lender informed of progress or problems
__ Record Keeping—Setting up a system that works for you and that you keep updated on a regular basis—at least monthly. Have a system where you are able to track production, which does to breed, cull, etc. Many producers see their operation in the black because they are able to sell breeding stock with proven records of production. Keeping records of costs and income is paramount and must be updated on a monthly basis.
__ Marketing—Promote your product! Use goat products and serve them at functions. Give them as gifts. Take advantage of opportunities like local fairs, field days, and other events and volunteer to help promote your industry. Should you decide to produce your own products instead of selling your milk to a plant, you will have to do additional research to become a marketer, as well as a producer.

M. Make a list of primary sources you will consult to assist you in making management decisions. List the name, contact number, e-mail, and the person's area of expertise. This handy list will serve you well as you establish and grow your business:

1._____
2._____
3._____
4._____
5._____

N. Find a veterinarian who is knowledgeable about goats or at least willing to learn.

__ Ask other producers
__ Ask a field representative
__ Contact local large-animal veterinarians and ask about their goat experience

O. Carefully research feeding options. This will be your largest expenditure and you must carefully consider your options.

__ Do you plan to buy most of your feed?
__ Do you plan to grow your own feed grains, roughage or silage?
__ Do you know which supplements you will need to buy?
__ Do you have the time, knowledge and land base to produce high quality feed yourself?
__ Have you found a knowledgeable nutritionist to work with?

P. Research pasturing options.

__ Will you use pasture to supplement feed you have purchased or grown?
__ Do you have enough land to use pasture as forage during the season?
__ Do you know the quality of your pasture?
__ Do you know how to measure the nutritional value of your pasture?
__ Do you know how and when to rotate your pastures?
__ Do you know which supplements you will need?

Q. Find a good dairy supply dealer and plan the installation of facilities and equipment carefully.

__ Contact dairy supply dealer representatives
__ Ask other producers
__ Contact extension representatives at the University of Wisconsin
__ Work with experts at the DATCP

R. Check out critical facilities components.

__ Is the water supply safe and adequate?
__ Is the well up to code?
__ Is the location of the well compatible with current regulations for a dairy?
__ Is the septic system up to code and functioning?

__ Will you need a separate septic system for milk-house waste water?
__ Has the electrical wiring been inspected and approved by a qualified electrician?
__ How old is the distribution line bringing electricity to the farm?
__ Has there ever been or is there now a problem with stray voltage or other electrical problems?

S. Contact the Department of Agriculture, Trade and Consumer Protection at 608-224-4734 for information on the set-up of your milking facilities. Your milk house and parlor plan must be approved by the state before it is built or remodeled.

T. Additional research needed. List below the areas you still need to research. Then determine where you will search to find the answers you need.

1._____

2._____

3._____

4._____

5._____

APPENDIX B—Words of Wisdom from the Field

Below are messages of advice and counsel from all over the country from producers and others in the industry.

“Plan, Plan, Plan!! How many animals can you efficiently/effectively handle? Do you want to be a certified organic producer? What will you do if the milk pick-up truck doesn’t come? What will you do with culled does: extra bucks? How big or small do you want to be? “Diversify, Diversify, Diversify!!” What other revenue sources will you have besides goat milk? Are you connected with a marketer/distributor to help you produce another income stream? Are there other markets you could tap? And finally, “GET HELP!! NOW!!”

Thanks for the opportunity to add my voice.

****

I have two tidbits to share:

There is grant money available for dairy goat and meat goat producers, but too many people misinterpret "grant" to mean "free." A grant is intended to fund research that will be of benefit to the industry, and good research means real work. If you are successful in finding a worthy topic to research and in writing a successful grant application, the plan of work you outlined in the application HAS to be carried out to a publishable conclusion. I have seen too many grant recipients use their money to keep the business going and not give proper attention to the research. It is a financial issue, as well as a moral one. Financially, there are two possible outcomes: The funding agency comes back and bites you in the behind (plus interest), or you end up using personal resources to finish the grant work and you're back to an undercapitalized business where you started.

The dairy goat industry requires that both partners in a marriage be fully involved in the business. They don't have to both be working in the business, but they both have to be fully invested in the idea that the business is important and worthy of time or monetary sacrifice when there are tough decisions to be made. Anything built on a cracked foundation is going to have trouble standing over time. If goats are the passion of one partner and the bane of the other, the marriage will suffer. Goats may not be the only problem if a marriage breaks up, but they sure add to the conflict. The irony of the whole matter is that the goats that prompt a divorce often have to be sold as a result of the split.

****

Make sure you have the knowledge to work with these wonderful animals, they are kind, loving and will get into as much trouble as a kindergarten class. They will test you every day.

You will need to know as much as the veterinarian. No, the truth is you will need to know more than they do to make raising goats profitable.

Make sure the feed is right for your goats. It is they who will do the work. All you do is clean up after them. Make

sure they are comfortable. And clean the milk room! If you feed them correctly, the goats will do the work gladly, so you can pay the bills and put a bit aside.

****

When Sweetwoods Dairy was starting up they asked a long-time goat dairy how the money side of things would be.

They were told, “Well, you can make a small fortune in goats!! Just start with a large fortune and you'll end up with a small one!!”

****

The best advice I can give to a beginning goat milk producer is to buy fewer, higher producing does, rather than large numbers of does with unknown milk production and health. Buying inexpensive milking does will cost you dearly in the long run, especially if there are hidden diseases in the herd. It takes approximately three years for the illnesses and weaknesses to manifest and to get weeded out of the herd, and for every goat that you bring into your barn that is ill, you risk losing many more as the illness spreads through the herd. Buy the best goats you can find, from breeders with a long history of honesty, reliability and with a proven record of high milk production in their herd.

I have a few tips for your start up guide for the Dairy Goat Farmer.

The one thing I tell anyone who's thinking about getting into commercial dairy goat farming is, when you set up, think modular. Make your pens, fencing etc. so it can change as you grow. I know what our barn set up was when we started. It's changed several times. What used to be the after grain feeding area, was fenced it when we needed kid pens. Now that area has been closed off with walls for my nursery. We also just recently rerouted the way the girls come into the parlor, by changing gates around. So, be modular, because you’re set up WILL CHANGE!

Having a herd of goats around is like having a bunch of 3-year- olds around. They always think it's time for eating. They are not the best mannered. If you walk into the pen with a pail of feed, you won't survive, and neither will your pail, even when it's empty since they all have to know what's in it or have the first nibble. They enjoy burping in your face, and chewing on your hair. If you're late for chores, they will protest very loudly, and totally forgive you as soon as they are fed and milked. Throw a bale of hay in the pen, and it must be climbed upon by them all. If you need to fix something in their pen, you will have plenty of help--in the process of fixing anything, you may have to hunt for your screwdriver, or the bag you had the screws in--and a sheet of directions, well, good luck keeping that in one piece! If something’s loose, they will find it and play with it until it's really loose or broken, and then they can help you fix it--(see above note). If it makes noise, such as a hanging chain, let’s make noise all afternoon! During milking, if some goat thinks you're not moving them it to the parlor fast enough, they been known to knock on the parlor door, saying hurry up in there, we need to be milked. But when all is said and

done, those goats will come up and want a scratch, a cuddle and a nose snuggle just the same as any three year old wants mom's affection.

****

Alternative Markets? I Don't Need Any Stinking Alternative Markets!

While working with farmers in southern Wisconsin for Blackhawk Technical College, I had the pleasure of working with many new startup and continuing farm operations, several of which were goat operations. Often farmers are content (except for pay prices) with the plant they are shipping their milk to and don't think much about what would happen if that plant were no longer willing or able to take their milk. On one occasion, I was called in to work with a farm in financial distress.

This farm had been inherited from the parents and had been run for many years by the next generation. This operation had been milking goats for many, many years. All had gone relatively well until their milk plant closed their Wisconsin operation and gave notice that they were no longer going to buy milk from their Wisconsin producers! As you can imagine this situation caused a great deal of consternation and financial stress for our owner. While dairy cow producers have the option of shipping to several plants, dairy goat farmers do not have such a luxury. At this particular time, there were few plants looking to add producers. The result was almost a full year without any milk sales from a 200 doe goat herd. This operation was fortunate in that it was a low cost operation with extremely low personal income needs, but that only allowed us time to carry out a reorganization of finances.

The upshot of this was a near loss of the farm, drastic refinancing of the farm with a new lender and the need to sell off acreages to a developer to bring finances into line. After a very difficult time, a new plant was secured but bringing a herd back into production after tight finances can be very difficult. This operation faces a long haul to rebuild and recover. The moral of this experience is: Always be aware of market options, in case the unthinkable happens, as it did to this farm family.

"Trust Me" Number One

While working as a Farm Training Instructor, I had the opportunity to work for one year with a wonderful couple that was attempting to start a new dairy goat operation. This couple had farm backgrounds and actively helped relatives with dairy cow farming. They had both worked in town for their working lives and in their later years felt they were in a position to buy a small farm in southern Wisconsin and decided that milking 100 to 200 goats would give them the income they needed to meet their life long goal to get back into farming work.

After some research and working with the local FSA office, they felt they had a transition plan that would work. I was called in to give them financial training and as such got to know their operation and issues involved quickly. Trust-Me these goats are bred to come in at the time your barn will be ready and are excellent milkers! Ya right! Not only

were these goats not bred as presented, with births months later and spread out, but it was a very mixed bag of animals many of which an experienced dairy goat producer would not have let off the truck. No plan goes well when your production of income is literally destroyed or at the least severely delayed and reduced.

"Trust Me" Number Two

The second "trust me" lesson was with a couple wanting to start a goat dairy. The suppliers they worked with were all fired up to build the milking system and get the facility ready and that needed to be done before the goats arrived. But original estimates were way off and the project suffered delays. Cost overruns hit this very tightly budgeted star-up hard. The whole sequence of events led to a great deal of stress on the wonderful and trusting couple and a very difficult decision just a year after starting. A little more than one year into farming, they decided with much consultation with FSA and everyone involved that things were beyond recovery and sold their dream.

Moral: Get cost quotes in writing. Have an agreement that includes definite time lines. And have a clear understanding on what is needed and who will be doing what and when it will be done.

APPENDIX C—Suggested Do's and Don'ts

Do be conservative with your cash flow projections – Murphy's Law applies to goat farms too!

Do seek out people who are goat farming now and utilize experts like a vet that knows goats, a feed person who understands goat nutritional needs, etc. Use other goat farmers as sources so that you can connect with other goat care specialists.

Do watch the small things. Small things can become BIG issues quickly and too many small things missed can end a goat farm operation.

Do find ways to cut costs creatively and always watch the bottom line total costs. Sales or savings can be misleading if the bottom line is that you spend more than you earn.

Do focus on why you want to or are goat farming. At this point it's really not realistic to believe that you will make a lot of money at it.

Do list your goals and reassess regularly whether or not you are on the right track.

Do define what it will mean for you to a have a successful goat operation. That way you'll know what your standards are and can see where you are in relation to them.

Don't avoid talking to lenders or creditors. They have an interest in making sure that your business stays viable. If you are having problems – talk to them to see if you can work something out to help you.

Don't stop exploring options to make money. Some goat operations have been quite successful at direct marketing, specialty breeding, and other types of marketing.

Don't hesitate to ask for help. If you don't know the answer chances are someone else has seen or heard of something similar and may be able to help you out.

Don't believe everything that everyone says – especially when they are trying to sell you something.

Don't believe that "one size fits all" and that what works in one set of circumstances will always work. Watch for the details and the small things that differ and then make adjustments quickly.

---Laurie Makos

APPENDIX D-- Employment Application

APPLICANT INFORMATION			
Last Name	First	M.I.	Date
Street Address		Apartment/Unit #	
City	State	ZIP	
Phone	E-mail Address		
Date Available	Social Security No.	Desired Salary	
Position Applied for			
Are you a citizen of the United States? YES ☐ NO ☐	If no, are you authorized to work in the U.S.? YES ☐ NO ☐		
Have you ever worked for this company? YES ☐ NO ☐	If so, when?		
Have you ever been convicted of a felony? YES ☐ NO ☐	If yes, explain		

EDUCATION				
High School		Address		
From To	Did you graduate? YES ☐ NO ☐		Degree	
College		Address		
From To	Did you graduate? YES ☐ NO ☐		Degree	
Other		Address		
From To	Did you graduate? YES ☐ NO ☐		Degree	

REFERENCES	
Please list three professional references.	
Full Name	Relationship
Company	Phone ( )
Address	
Full Name	Relationship
Company	Phone ( )
Address	
Full Name	Relationship
Company	Phone ( )
Address	

PREVIOUS EMPLOYMENT			
I. Company		Phone ( )	
Address		Supervisor	
Job Title	Starting Salary $	Ending Salary $	
Responsibilities			
From To	Reason for Leaving		
May we contact your previous supervisor for a reference? YES ☐ NO ☐			
II. Company		Phone ( )	
Address		Supervisor	
Job Title	Starting Salary $	Ending Salary $	
Responsibilities			
From To	Reason for Leaving		
May we contact your previous supervisor for a reference? YES ☐ NO ☐			
III. Company		Phone ( )	
Address		Supervisor	
Job Title	Starting Salary $	Ending Salary $	
Responsibilities			
From To	Reason for Leaving		
May we contact your previous supervisor for a reference? YES ☐ NO ☐			

MILITARY SERVICE	
Branch	From To
Rank at Discharge	Type of Discharge
If other than honorable, explain	

DISCLAIMER AND SIGNATURE
I certify that my answers are true and complete to the best of my knowledge. If this application leads to employment, I understand that false or misleading information in my application or interview may result in my release.
Signature Date

APPENDIX E-- At-will Employment Agreement

I, _____ (the employer) _____ agree to employ _____ (the employee) _____ to work on my dairy operation beginning ____ (date) _____ and continuing until such time as either wishes to terminate this agreement by a ____ -day notice.

The employer and employee agree to comply with the following conditions and actions:

1. The employer agrees to pay $ _____ per _____, from which the employee's Income Tax (yes/no) and Social Security taxes will be withheld. Payment will be made by the _ (day) _ of ____ (week, biweekly, monthly) _____.

2. The employer agrees to provide a house with utilities, including heat and electricity. Maintenance is to be provided by _____ and paid for by _____. Any other agreements pertaining to this employee's housing will be noted on the back of this page.

3. Normal working hours are from _____ (am/pm) to _____ (am/pm). Days to be worked include: _____.
    - Overtime provisions: _____.
    - Time off, days off and holidays: _____.

4. The employee is entitled to _____days of vacation (with/without) pay annually, which shall not be taken during the heavy work season and which shall be agreed upon by the employer _____ days prior to vacation.

5. The employee is entitled to _____ days of sick leave with pay for time off due to illness.

6. Other benefits provided to the employee (milk, meat, etc.)

7. The employee will be provided with the following insurance coverage:

8. Bonus or incentive plan provided:

9. Provisions not included above (are/are not) listed on an additional sheet.

Employer Signature: _____ Date: _____

Employer Signature: _____ Date: _____

Adapted from the Purina Mills Dairy Personal Management Starter Kit, Roger W. Palmer, Ph.D, Purina Mills, Inc.

APPENDIX F-- PERFORMANCE EVALUATION

1. What did the employee do well this year?

2. What could have gone better this year?

3. What specifically should the employee focus on next year?

4. What technical, leadership, or interpersonal skills would benefit from further concentration or development by the employee?

Overall performance rating of the employee for the year _____

Employee Signature: _____ Date: _____

Manager's Signature: _____ Date: _____

APPENDIX G-- Wisconsin Dairy Goat Resources Guide

1. **Wisconsin Dairy Goat Association** http://www.wdga.org. This website contains useful publications, presentations, and links to other resources as well as a calendar of events.
2. **Goat Dairy Library**—a collection of information and ideas on dairy goat farming, compiled by a producer. http://goatdairylibrary.org
3. **ATTRA, the National Sustainable Agriculture Information Service**, is a good place to start for information on dairy goat and meat goat operations. www.attra.ncat.org
4. **Iowa State University** has a website with lots of links. www.extension.iastate.edu/dairyteam/goatssheep.html
5. **The Wisconsin Dairy Goat Survey,** published in October, 2006, provides a wide variety of information about the state's dairy goat industry. http://www.nass.usda.gov/Statistics_by_State//Wisconsin/Publications/Dairy/dairygoats.pdf
6. **Langston University**—E (Kika) de la Garza Institute for Goat Research. http://www.luresext.edu
7. **UW-Extension Guide,** *Starting a Value-Added Food Business*. This website provides step-by-step help in developing a business plan. Not specific to farmstead cheese production, but helpful nonetheless. http://www.uwex.edu/ces/agmarkets/starting.html
8. **Wisconsin Dairy Artisan Network** http://www.wisconsindairyartisan.com/become.html. This website provides an overview of how to get established, as well as links to current producers (those with a value-added product). There is an entire section devoted to getting started in farming.
9. **Land Stewardship Project's Farm Beginnings Program** http://www.landstewardshipproject.org/programs_farmbeginniings.html. This is a ten month training course for beginning farmers, based in Minnesota, but reaches out to farmers in Iowa and Wisconsin. They host summer field days and may have additional people/resources to contact. Karen Stettler, 507-523-3366 or stettler@landstewardshipproject.org
10. **"You can make it, you can sell it, but can you make it selling it?"** Article by Dr. Gary Frank of UW-Madison's Center for Dairy Profitability. http://cdp.wisc.edu/pdf/onfarm.pdf
11. **The University of Wisconsin Center for Dairy Profitability** has information on business management, human resources management, production systems, finance and marketing systems. www.cdp.wisc.edu
12. **A National Inventory of Goats and Sheep**, including breakdown by breed, use, and state. http://usda.mannlib.cornell.edu/usda/current/SheeGoat/SheeGoat-02-02-2007.pdf

APPENDIX H—Balance Sheet

BALANCE SHEET

Name: **Date:**

CURRENT ASSETS				CURRENT LIABILITIES			
	UNITS	$/UNIT	$ VALUE		% INT	PYMNTS	$ OWED
Cash				Past Due R.E. Tax			
Savings				Past Due Inc. Tax			
Account Receivable				Accounts Payable			
Feed							
Seed, Fert, Inv							
Growing Crops							
Crops Hld for Sale							
Market Livestock							
Market Livestock							
Life Ins. Cash Val				Accrued Interest			
Stocks and Bonds				Loans on Life Ins.			
Other_____				Cash Rent			
				All Other Cur. Debt			
TOTAL CURRENT ASSETS				TOTAL CURRENT LIABILITIES			
INTERMEDIATE ASSETS				INTERMEDIATE LIABILITIES(1 to 10 years)			
Trucks & Vehicles				Notes Payable	YRS	% INT	PYMTS / $ OWED
Machinery & Equipment							
Breeding Lvstk	UNITS	$/UNIT	$ VALUE				
Cash Val Life Ins							
Other				Financial Leases			
TOTAL INTERMEDIATE ASSETS				TOTAL INTERMEDIATE LIABILITIES			
LONG TERM ASSETS				LONG TERM LIABILITIES (10 or more years)			
	ACRES	TAXES	MRKT VAL.	Farm Mortgs.	YRS	% INT	PYMTS / $ OWED
Farm Land							
Farm Land							
Residence							
Household Impv.							
Land Cont. Rec.							
Retirement							
TOTAL LONG TERM ASSETS				TOTAL LONG TERM LIABILITIES			
TOTAL ASSETS				TOTAL LIABILITIES			
				NET WORTH(TOT ASSET-TOTAL LIAB)			

APPENDIX I--Cash Flow Worksheet

CROP PROD. & SALES	ACRES	PROD/ACR	UNITS SLD	$/UNIT	$ SALES
CORN					
SOYBEANS					
OATS/WHEAT					
HAY/STRAW					
OTHER					
GOV. PAYMENTS					
(A) TOTAL CROP SALES					
LVSTCK PROD & SALES	**UNITS**	**PROD/UNIT**	**UNITS SLD**	**$/UNIT**	**$ SALES**
MILK SALES					
CULL COWS					
CALVES					
OTHER					
OTHER FARM INC.					
(B)TOTAL LIVESTOCK INCOME					
(C)TOTAL FARM INCOME(A+B)					
CASH OPERATING EXPENSES				**$ / UNIT**	**$ EXPENSES**
CAR & TRUCK EXP.					
CHEMICALS					
CONSERVATION EXP.					
CUSTOM HIRE					
FEED PURCHASED					
FERTILIZER & LIME					
FREIGHT & TRUCKING					
GAS, FUEL & OIL					
INSURANCE					
LABOR/BENEFITS/PENSION					
RENT & LEASE					
REPAIRS & MAINTENENCE					
SEEDS & PLANTS PURCH.					
SUPPLIES					
TAXES					
UTILITIES					
VET,BREEDING & MED.					
OTHER					
OTHER					
(D)TOTAL CASH OPERATING EXP					
NET CASH FARM INCOME(C-D)					
-CAPITAL PURCHASES					
+CAPITAL SALES(not incl. culls)					
+NON-FARM INCOME					
+NEW LOANS AND OTHER CREDIT					
=BALANCE AVAIL. FOR DEBT SERV. & FAMILY LIVING					
-FAMILY LIVING EXPENSES					
-PRESENT DEBT PAYMENTS(Inc. all Current Debt)					
=BALANCE AVAIL. AFTER DEBT SERVICE & FAMILY LIVING					

APPENDIX J-- Goat Milk Producer Quick Reference

- ✓ Regulations governing facilities, storage, transport, and sale of milk are the SAME for all types of milk. Regardless of whether you are producing cow, goat, sheep or some other type of milk, you must adhere to the same regulations. Only somatic cell count requirements vary among different animals.

- ✓ Requirements for licensing, milk quality, milking barn construction, milk house construction, water requirements, cleaning, maintenance, equipment, housing, etc. can be found in ch. ATCP 60, Wis. Adm. Code. Note that facility requirements for goat and cattle dairy operations are the same.

- ✓ Equipment installation (bulk tanks and milking systems) requires plan submission and state approval.

- ✓ Milk Producer license applications are processed by the Department of Agriculture, Trade and Consumer Protection through dairy plant representatives and are not accepted directly from producers.

- ✓ At this time, the Division of Food Safety is not aware of any dairy plant accepting new goat milk producers.

- ✓ The sale of Raw Milk and Raw Milk dairy products directly to consumers is illegal in Wisconsin.

- ✓ Having milk custom processed by a licensed dairy plant is a viable option for some producers. There are restrictions for the volume of milk that can be custom processed and producers must have an approved method for transporting the milk. Please see s. ATCP 60.02(7), Wis. Adm. Code, for details.

- ✓ Division of Food Safety contact information: Call 608-224-4700 and ask the receptionist for the name and phone number of the inspector responsible for the specific geographic area of the farm. Inspector areas are assigned by County and Township.