

# Enterprise Budget:

# Sheep

THE SHEEP INDUSTRY HAS BEEN GROWING and with the right management can be a very profitable enterprise. Sheep are easy to handle and do not require elaborate equipment and facilities. They can provide two incomes from the meat and wool production as well as provide weed and brush control. For the part-time farmer or beginning small-scale farmer, sheep require little investment with increasing rate of returns.

Sheep and lambs are not prevalent on U.S. farms, regardless of the size or typology. Only 4 percent of U.S. farms had sheep in 2007 and the percent by sales category was 6 percent for farms with sales of \$1,000 to \$2,500. There were 6 percent of the limited resource farms that also reported having sheep or lambs.

The situation is somewhat different in Iowa. Only 4 percent of all Iowa farms report having sheep and lambs, but 11 percent of the \$1,000 to \$2,500 farms, 9 percent of the \$2,500 to \$5,000, and 7 percent of \$5,000 to \$10,000 and \$10,000 to \$25,000 sales categories reported having sheep or lambs in 2007.



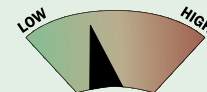
## Physical Attributes

The type of market you want to enter will help you in making a decision about what breed to purchase. Most operations start with commercial crossbred ewes because they are cheaper to buy and have higher reproduction rates than purebreds. Sheep breeds are divided into five different classes: fine wool, wool, meat, milk, and hair sheep. Three fourths of the United States sheep population is in the western United States with Rambouillet type wool sheep raised.

- **Dorset** – White face sheep of moderate to large size with good milk and carcass traits. Will breed out of season (spring) and fall lamb.
- **Rambouillet** – Fine wool breed with excellent hardiness and longevity. Low to moderate lambing rates along with average to low growth.
- **Suffolk** – Black face terminal sire breed. Fast growth, good to excellent carcasses along with high lambing rates.
- **Hampshire** – Black face terminal sire breed. Fast growth, excellent carcasses, and moderate lambing rates.
- **Polypay** – A moderate size white face maternal breed. Excellent mothers with high lambing rates. May breed out of season. Medium growth and carcass.
- **Finn Sheep** – Small white face breed that is very prolific. Ewes average three lambs born per lambing. Slow growth and poor carcasses. Crossbred ewes with  $\frac{1}{4}$  to  $\frac{1}{2}$  Finn sheep genetics make excellent commercial ewes.

## Enterprise Assessment

Capital needed for startup



Importance of experience with grain crops



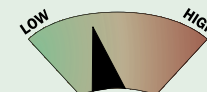
Managerial input needed



Labor input required



Years needed to develop production expertise



Years needed to develop marketing expertise



Years to financial break-even point



Return on investment (%)



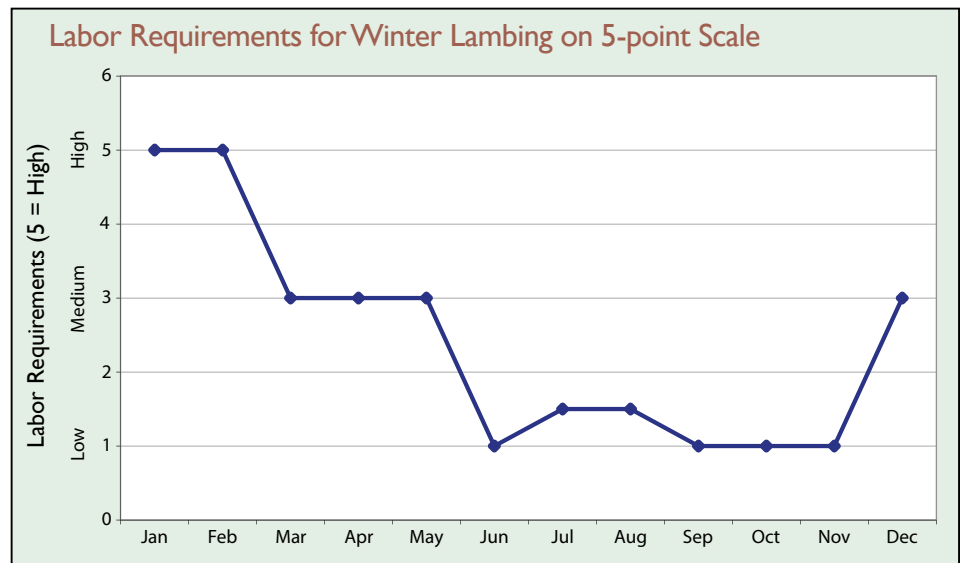
- **Romanov** – Most prolific genetics available in the sheep industry. Ewes average almost four lambs per lambing. Small size and slow growth. Ewes are a bit high strung and take above average stockmanship skills to work with them. Crossbred ewes with  $\frac{1}{4}$  to  $\frac{1}{2}$  Romanov genetics make excellent commercial ewes.

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There are also many other breeds to choose from, but choose the breed that is best suited for you. The National Sustainable Agricultural Information Service suggests that you buy sheep in your area because you know they are adapted to your area. Buying sheep from the West or South may require a year before the ewes have adjusted to the Midwest climate.

Sheep can be raised on dry lot, but pasture grazing is less expensive. With pasture grazing, it is important to have a good rotational system. Sheep do not like grass taller than six inches and grass should not be grazed lower than two inches.

Dividing the pasture into small paddocks is an efficient system. *The Pasture Management Guide for Livestock Producers*, PM 1713, suggests a three-strand electric fence; when building fences, remember sheep do like to jump. If you decide on the dry lot method, you will need to consider the price of hay. Sheep are also very picky, so choosing quality hay will reduce waste. Also controlling the amount offered per day is critical to controlling waste in the ewe flock. Both dry lot and pasture ewes need grain five months before lambing for added energy. A mineral salt mix also should be given as free choice.



## Lamb Production

Lambing is the most time consuming part of sheep production. There are many options to timing of lambing so evaluate your resources and management to decide when is best for you. Lambing can happen in the fall, winter, or spring, and some producers try to get two crops in one year.

### Fall lambing

Ewes would be bred in mid April through mid June. This time is out of season. Breeds such as Dorset, fine wools, and crossbreeds are more successful. Fall lambing also requires pasture management to provide adequate forage for pasture lambing. However, labor availability in the fall might be shorter with harvest. Operations should not expect more than 50 percent conception rates for accelerated lambing flocks and 75 percent conception rate for fall lambing flocks.

### Winter lambing

Ewes are bred in July, August, and September. This is a little earlier than the normal time, so flushing the ewes for two weeks before breeding will give the producer more success. Ewes can then be put on pasture until prior to lambing when they need high quality, energy forages and grains. However, lambing in winter will re-

quire some type of shelter when the young lambs are born. Winter can be a down season, so labor availability should be higher. The lambs also will be ready to market and sell in June through August when lamb prices are typically higher.

### Spring lambing

Ewes' natural cycle is to be bred in October and November and lamb late February through April. Environmental conditions are better, creating a higher lambing rate that could be 200 percent or more. Pasture lambing also is very feasible in the spring; however, weather and predator losses can be high under pasture systems.

## Potential Returns

Returns for your enterprise will vary depending on how well you manage your herd. Sheep are a low-cost investment and can help add income to your farm. To increase your returns strive for a higher after-lambing rate. Lambs marketed per ewe exposed needs to be 15 percent or more for good reasons. This is roughly 20 percent higher than Iowa's average. Also, you can reduce costs by sticking with low-cost feed resources and taking advantage of pasture you already have.

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## Labor

Labor is for lambing and feeding; ewes should be slanted toward lambing in large flocks and feed in small flocks. Sheep require the most labor during the lambing season. Winter is the season when most farmers have down time, so a sheep enterprise could use the extra labor available then. Sheep also require some labor in preparing for breeding, which would come during the months of August and September. Chart 1 is a graph showing labor requirements throughout the year on a 1 to 5 scale with 5 being the most.

## Risks

The biggest risk is market uncertainty in the sheep industry. Over one half the

lamb consumed in the U.S. is imported. Strength of the U.S. dollar and the global economy have a huge impact on lamb price. Disease issues also can be a problem in sheep flocks. However, health risks can be overcome with a closed flock, good preventative health program, and good nutrition and management. Internal parasites can be a problem, especially in young animals. Operations that graze both lamb and ewes are most at risk because pastures are the main source. Coyotes and stray dogs also are a risk to the flock. Some producers use guard animals such as dogs, llamas, and burros to reduce predator risks. Guard dogs are generally the most effective but require the management and costs.

## Marketing

Sheep producers have a few options when marketing lambs:

1. Sale barns
2. Buying station
3. Niche marketing
4. Direct marketing

### Sale barns

In Iowa, there are approximately 15 sale barns across the state that have sheep sales. Most auction barns sell feeder lambs, slaughter lambs, and replacement ewes. All sheep are sold on a per pound per head basis. Some sale barns like Kalona Sales Barn (southwest of Iowa City), have special Easter sales when the demand for lamb is up.

### Buying station

Buying stations have one buyer who buy directly from producers or livestock auctions. They then resell the sheep to slaughter houses, retailers, and wholesalers. Some buying stations will pick up your sheep, while others will require you to deliver them to their facilities.

### Niche markets

Producers can set the market price if they specialize and find the right niche market. One niche market to go after would be certified organic lamb or grass finished lambs. Both of these markets favor the natural environment surroundings and limited medications. Farmers located by big Asian, Latino, or Muslim population can hit those markets as well. Besides having meat, growers can develop their flocks for wool production. Even though wool hasn't had the highest prices, growers can specialize in colored wools that are valued by hand spinners.

### Direct marketing

Selling directly to customers is not a common practice and takes good management skills. Producers need to know their customers and the kind of products they are looking for. Producers also need good people and marketing skills to be successful. Direct marketing also

## Economic Considerations: Sheep Enterprise Budget

The following budget shows estimated costs and returns on a 100 ewe sheep operation.

Operating Inputs	Units	Quantity	Price per Unit (\$)	Value (\$)	Sheep Sold (#)	Totals (\$)
Grain	lbs	750	0.15	112.50	100	11,250.00
Hay	lbs	1,000	0.06	60.00	100	6,000.00
Vet medicine	hd	1	5.00	5.00	100	500.00
Salt and minerals	lbs	24	0.40	9.60	100	960.00
Marketing expenses	hd	1	5.00	5.00	100	500.00
<b>Total Operating Cost</b>						<b>19,210.00</b>
Fixed Costs	Units	Amount	Price per Unit (\$)	Value (\$)	Sheep Sold (#)	Totals (\$)
Machinery depreciation				2.38		2.38
Ewes	lbs	130	0.31	40.30	100	4,030.00
Ram	head	1	400.00	400.00	1	400.00
Replacement ewes	head	1	95.00	95.00	15	1,425.00
Depr., taxes, insurances				5.70		5.70
<b>Total Fixed Costs</b>						<b>5,863.08</b>
Revenues	Units	Quantity	Price per Unit (\$)	Value (\$)	Sheep Sold (#)	Totals (\$)
Wool	lbs	7.5	0.27	2.03	100	202.50
Lambs	lbs	135	0.95	128.25	145	18,596.25
Culled ewes	head	1	25	25.00	15	375.00
<b>Total Revenues</b>						<b>19,173.75</b>
<b>Expected Returns per Ewe</b>						
<b>Above Total Operating</b>		<b>\$50.00</b>				
<b>Above Specific Costs</b>		<b>\$25.00</b>				

Source: <http://www.uvm.edu/livestock/sheep/guide/budgethelp.htm>

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takes more time, so operations that have a tight labor supply need to carefully consider this approach.

## Management

Good health and management practices are especially important in a sheep enterprise. There is an old tale that says, "A sick sheep is a dead sheep." This is not always the case, but as a producer you want to keep your flock healthy. First of all, good nutrition will provide the sheep with energy and nutrients they need to survive. Next internal parasites are a major problem in sheep, and several of these pests are picked up by grazing close to the ground in pastures. Rotational grazing provides better nutrition to the flock so that sheep are better able to combat internal parasites via their immune systems.

Another disease in sheep is foot rot, which is caused by the bacteria *Bacteroides nodosus*. Any new sheep you buy or bring on your farm should be quarantined for 30 days before putting them in with the flock. In rotational grazing, give a paddock a two-week break to allow time for the bacteria to die. If your sheep do get foot rot, it needs to be treated with 10 percent zinc sulfate foot soaks for one half hour once per week. Vaccinate with footvax and inject with antibiotics. Consult a veterinarian for best product and dosage. Some sheep are prolonged carriers of this bacteria and the best thing would be to sell them to get rid of the disease. All flocks need to get a premise ID from the state veterinarian, and all intact animals leaving the farm must be tagged with an official USDA tag.

## Market Outlook

The outlook for sheep is promising, but increasing corn prices may have an effect on this. The average price per pound in 2007 for wool in Iowa was 0.31 cents per pound. The black face breeds with courser wool have less value than the higher quality wool of some white face breeds. You

can check the USDA weekly lamb report for up-to-date market information at the Web site listed in the sources section. Lambs are ready to market between 120 and 150 pounds. However, the cull ewe market is not as good, so many producers keep ewes as long as possible.

## Production

Sheep are seasonal breeders that can lamb in the winter, spring, or fall months. Most production systems lamb once a year, but with good management you can get two crops out of the ewes. For beginning breeders, it is suggested that they start off with one crop. Take into account your goals, time, and management when deciding on the best time to lamb. If you mainly have row crop, lambing would use the extra labor that you have in the winter. On the other hand, if you do not have facilities to lamb in during the winter, you may want to lamb in April when it is warmer.

## Finances and Economics

### *Profitability of sheep*

Raising sheep can be very profitable with good management and budgeting skills. It also is a good way to utilize land and buildings. Many factors go into determining profitability and marketing skills of a sheep enterprise. The following assumptions were made:

- Market price is \$.95 per pound live weight
- 1½ lambs were weaned and sold weighing 130 pounds
- Ewes were in dry lot for five months to a year for lambing and the rest on pasture
- Lambing crop: 175 percent
- Lambing death loss: 10 percent
- Ewe replacement rate: 20 percent
- Ewe death loss: 5 percent

### *Start-up cost*

Breeding ewes can be bought for about \$150 per head and rams cost between \$400 and \$1,000 a head. The only building cost you would have is if you

decide to lamb from January through early March. Otherwise most of the lambing can be done outside for minimal cost. Sheep require little space and 100 sheep with 150 lambs can easily graze on 30 acres for one year. This would require fencing for a rotational pasture system and fertilization.

## Sources

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<http://www.iowasheep.com>

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<http://www.sheepandgoat.com/>

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<http://attra.ncat.org/attra-pub/sheep.html>

*Oklahoma State University Breeds of Livestock*  
<http://www.ansi.okstate.edu/breeds/sheep>

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