

Capture Value of More Quality Replacements

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Production agriculture is unique because raising replacement animals is a normal part of day-to-day business operations and are commonly treated as operating expenses. The replacements are also an asset on the balance sheet and for most dairies become the primary productive asset of the business.

The ability to generate more animals than needed and to capture this value is one of the most significant ways dairies can grow profits. And, it is largely under the control of the management of the business.

Generating more replacements than needed - or generating high internal herd growth - is recognized as one way more profitable farms separate themselves from other dairies. Those that do a better job of building asset value, increasing herd performance, or lowering costs of raising replacements have increased ability to generate profits over time.

When looking at herd-driven asset growth, three key management areas emerge:

- 1) How many replacements are needed to maintain herd size?
- 2) How many replacements are being generated?
- 3) How is the value of excess animals captured?

How many replacements are needed?

The first area focuses on the management of the dairy herd and the number of animals needed to maintain desired herd size. Key management issues are:

- ☑ How many animals need to be replaced?
- ☑ Why do they need to be replaced?
 - · ☑ Died
 - · ☑ Unprofitable due to mastitis, poor reproduction, etc.
 - ☑ Animal available to replace is projected to be more profitable than current animal
- ☑ What can be done to decrease the number of cows that need to be replaced?

A key management objective is to understand why cattle are leaving the herd, minimize the number of animals required to be culled and increase the flexibility of deciding which animals should be replaced.

How many replacements are generated?

The second area is influenced by management activity in both the milking herd and the replacement program. Key factors influencing the number of replacements generated are:

- ☑ Number calves born per year
 - ☑ Calving interval
- ☑ Ratio of heifer calves to bull calves
- ☑ Number heifer calves born dead
- ☑ Non-completion percent of heifers, or heifer cull rate
- ☑ Replacement calving age

The combination of these five factors, especially the first four, determine the number of replacements available each year. Given average herd turnover rates and a stable herd, if the first four factors are strengths, this farm can generate more heifers than needed. For farms that

struggle with any two of the first four factors, it may be difficult to generate any excess animals. If only one factor of the first four is a strength, then it may be difficult to maintain herd size.

For a herd of 100 cows with a Cow Replacement Rate (Cull Rate) of 45 percent and a Non-completion Rate of 14 percent for replacements, the farm needs over 55 cows calving with a heifer to maintain herd size. If the Cull Rate drops to 33 percent with the same non-completion, then only 41 animals need to calve during the year with a heifer.

By generating more heifers than required for replacement needs, the business has the ability to generate additional earnings by having extra animals to do something with.

If 50 replacements are required to maintain herd size, and only 50 are generated, there are no excess animals for growth. Costs of raising the replacements are all expenses, and there is no increase of asset value.

Consider a dairy which generates the same 50 replacements but only needs 40 to maintain herd size. These 10 extra animals lead to an increase of inventory on the balance sheet. Now instead of all costs in raising replacements being strictly an expense, some of the costs lead to an increase in assets.

The fifth factor influencing the number of replacements being generated is the calving age of the replacements. This impacts the business in several ways. With older calving ages, more heifers are being raised, leading to increased inventory costs for replacements. The animals are also delayed from entering the herd, which can slow down the rate of internal growth. For example, if 15 heifer calves were started in January 2004 and the calving age is 28 months, it will be May 2006 before they enter the herd. If the calving age is 22 months, they would enter the herd in November 2005 - six months earlier.

However, even if generating more replacements than needed, there is no guarantee the profitability of the business is enhanced. There is little or no financial gain from the replacements being generated if:

- ⌚☒ High cost to raise replacements
 - ⌚☒ Labor
 - ⌚☒ Feed
 - ⌚☒ Inventory - older calving age

- ⌚☒ Quality of replacement is low
 - ⌚☒ Stunted growth
 - ⌚☒ Too fat
 - ⌚☒ Mastitis
 - ⌚☒ Become unprofitable quickly

How to capture value?

The mission, vision, values, goals of the family and business are all important when evaluating and choosing among the different ways to capture the value.

Grow herd by keeping all excess heifers and bringing into your herd.

Assumptions:

- ⌚☒ You have capacity - barn, parlor, feed, etc. - to milk additional cows and handle them profitably.
- ⌚☒ You have the ability to handle more heifers.

Pluses:

- ⌚☒ More control of the genetics and quality of the animals.
- ⌚☒ Increased biosecurity
- ⌚☒ Fill existing facilities and move closer to capacity without having to buy animals.

- ①☒ Continually utilize operating expenses associated with raising replacements - feed, labor, etc. - to build balance sheet assets in total cattle inventory.
- ①☒ Generate slow and steady growth over time, which may be easier to manage than large increases over a short time.

Negatives:

- ①☒ Slow cash generation from the increased milk production to support all the heifers.
- ①☒ Carry risks of animals calving and not performing.
- ①☒ It must be economical to grow. If it costs too much to handle the increased cattle numbers, the value gained by keeping the replacements may be offset by the costs to do so.

Sell milking animals in first or later lactation, and maintain herd size.

Assumptions:

- ①☒ A market exists to sell animals.
- ①☒ You sell animals at a high enough price to offset calving risks.
- ①☒ You have the capacity and capability to calve and milk animals.
- ①☒ First-calf heifers produce milk equal to or greater than cows sold.

Pluses:

- ①☒ Keep best genetics through calves.
- ①☒ Sell the least profitable dairy cows in the herd, market them for dairy purposes if possible and average a higher price than beef value.
- ①☒ Capture profitable milk production for a year or two in the case of later lactation animals.

Negatives:

- ①☒ Carry all the risk associated with calving heifers. For older cows, you run the risk of losing calves they carry.
- ①☒ Loss of genetics for first-lactation animals sold.

If the farm is at a stable herd size with no plans to grow in the near term, then improving the milking herd may be a good way to capture the value of the excess replacements.

Assuming the dairy has a good genetic selection program, the replacements will have the highest genetic potential in the herd, and the calf they carry would be the next genetic step forward. The herd may improve by replacing cattle with an animal of higher profit potential. The number of heifers entering the herd is maximized as not selling many pregnant animals. Additional income can also be realized if extra cows are marketed as dairy cows in lieu of beef.

Sell excess heifers as calves or springers.

Assumptions:

- ①☒ A market exists to sell animals.
- ①☒ Price received for calves/springers is greater than raising costs.

Pluses:

- ①☒ The dairy can choose which animals to sell.
- ①☒ No risk associated with animals that calve and don't perform.
- ①☒ Don't need additional cow capacity, or heifer-raising capacity if sell calves.
- ①☒ By selling calves, you minimize feed, labor, facilities, manure and machinery needed to raise heifers.

Negatives:

- ①☒ Lose the genetic potential of heifers.
- ①☒ In the case of springers, lose the calf being carried and the opportunity for future growth.
- ①☒ If selling calves, lose possible reserve if you later want or need animals to maintain herd size.

Leasing animals you own to another dairy is another option you can consider.

In Summary

Generating internal asset growth by producing more replacements than needed to maintain herd size is one means to generate profit that is under management control. Interaction among many different aspects of the business is critical to successfully generate internal growth in cattle. By generating more animals than needed, and capturing the value through different approaches, profits are enhanced by using operating expenses to build balance sheet assets. How a farm chooses to capture value is a management choice. Having the option to decide how to utilize excess animals should be the goal of all dairy managers.

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