Cost of Production: another tool for the toolbox

John Molenhuis, Business Analysis and Cost of Production Specialist Ontario Ministry of Agriculture, Food and Rural Affairs

Veal farmers, like all farmers, are using tools all the time; wrenches, hammers, duct tape, shovels, electronic readers and the list goes on. Cost of Production (COP) is just another tool that can help in farm-level decision making.

Farms with multiple enterprises can use COP to assess which enterprises are making money and which are not. You can use it to concentrate on individual or groups of costs that have the biggest impact on it. Pricing targets for inputs, like calf and feed purchases, and outputs can be set at different cost breakeven levels. For veal, knowing your other costs can help show you what you can afford to pay for bob calves.

Veal Farmers of Ontario (VFO) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) have been developing a COP tool to help farmers calculate their costs and use them in their planning.

The tool uses the production systems approach to calculate COP. It allows for a production period divided into two stages (weaning and finishing), buying in preconditioned calves, or a combination of both.

The veal production practices are detailed out, and input prices applied, to arrive at a total cost for each cost. Capital investments are costed out based on replacement costs with typical depreciation, interest, repair and insurance rates. From a planning perspective, these are useful because the amounts used and prices paid are detailed out so changes to rations or input prices can be made and the impact on the financials can be guickly determined.

Before diving into the costs, the first section of the budgeting tool allows the user to provide their production profile. This is basically painting the production picture of their farm; how many calves are purchased, purchase and sale weights, average daily gain (ADG), death loss percentages, etc. Production drives cost of production, so having a good handle on your farm's productivity, and how different productivity levels will change your COP, is

Farming has many risks; disease, weather, and market volatility can quickly change your

financial forecasts. Some of the key risk factors that impact a veal operation are considered in the budget such as calf purchase and sale prices, death loss and ADG. Identifying the risks and the range of possible outcomes can help in planning for ways to manage or mitigate them. If death loss is twice as high as you expect, how does that affect your bottom line? If you can increase your ADG from 3.0 to 3.5 pounds per day, how much will this lower your feed cost? Understanding and monitoring price seasonality and volatility both on the bob calf and finished side are important considerations in deciding what you can afford to pay for calves based on the potential market price outlooks. Figure 1 shows the seasonality of market price and how bob calf purchase prices from seven months prior relate to the price they received as finished yeal.

While the format of COP budgets can vary they typically include the following:

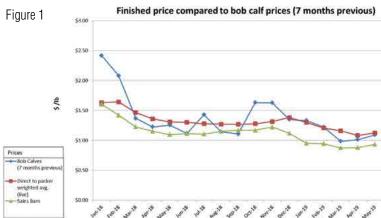
- **Revenue:** the gross revenue from crop and livestock sales before any costs have been deducted.
- Direct Variable Costs: input costs to produce a specific commodity, which change depending on the level of production (e.g. calf purchases, feed, veterinary costs, seed, fertilizer and pesticides).
- Indirect Variable Costs: costs used in producing all commodities on the farm (e.g. fuel, labour and utilities). These also change depending on the level of

production but not in direct relationship with production.

- **Fixed Costs:** costs that remain the same regardless of the level of production (e.g. property taxes, fire insurance, term interest and depreciation).
- Net Farm Income (Profit Margin): revenue minus all variable and fixed costs.

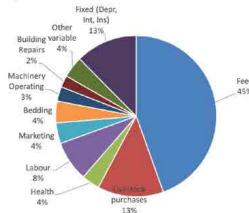
As you move down this list the costs become more individual; everyone is purchasing and feeding calves and has a health program in place, so those tend to be more consistent across farms. But things like your hired labour can depend on how much you do yourself or how many family members are involved; your building and machinery investment are unique to you, and debt commitments will differ farm to farm based on the stage of your farm business and your attitudes towards debt.

Figure 2 presents the breakdown of the costs of a typical veal operation. With the costs broken down you can identify those areas that impact your COP the most. Feed costs represents almost half of the total costs, so it makes sense (and cents) to concentrate planning time on knowing your feed costs. Purchased feeds are straightforward, but how do you account for homegrown feed? Their costs will be spread across all the crop-related costs like seed, fertilizer and fuel. If the farm also sells cash crops this further complicates the homegrown feed cost picture. There are one of two ways to handle homegrown feed costs; they can be valued at cost or at market value. Market value



represents the opportunity cost of feeding the crops to livestock rather than what you would have received selling them. Regardless of the approach you use, having a good handle on feed costs is a good starting point in controlling your COP. You can move through your COP, looking at each cost to determine areas that you are strong in and areas that could be improved.

Figure 2. Veal Cost of Production



The COP tool developed is based on a typical veal operation with underlying assumptions on how the costs were determined. It is important to use these just as a guide in determining your own COP; replacing the sample numbers with your own numbers will be more meaningful and useful in making farm business decisions.

The tool will be available in Excel format on the VFO (ontarioveal.on.ca) and OMAFRA Ontario Enterprise Budgets sites (omafra.gov.on.ca/english/busdev/bear2000/Budgets/oeb.htm).

16 The Connection The Connection 17