BARNYARDS & BACKYARDS

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Manage risk with enterprise planning and budgeting

By James Sedman and John Hewlett

The financial uncertainty across the U.S. is starting to show itself in production agriculture.

Recent bank failures, declining prices, and changing asset values are beginning to affect the availability of credit in agriculture. Farms and ranches tend to be dependent on outside credit for operations and to finance capital purchases.

National surveys of bankers and other ag lenders are beginning to show a tightening of credit and requirements. This adds another dimension to the financial risk farmers and ranchers face.

Where an operation is dependent on credit, bankers will want to see certain features with any application: high repayment capacity, high asset quality, and a high level of planning and budgeting. Utilizing extensive enterprise budgeting can help meet all of these criteria as well as being a necessary part of complete business planning.

Benefits of Enterprise Budgeting

The most important benefit of enterprise budgeting is helping determine potential profitability. Setting up budgets for different enterprises can aid production decisions, such as which crops to plant or when and how to market livestock. Using enterprise budgets should also help determine break-even price levels and yields, which, in turn, will assist in making marketing decisions.

If an operation relies on credit, the banker will want to see extensive budgeting and planning on an enterprise level. This should be an integral part of operational decision making. Enterprise planning will also help determine an operation's risk management needs. Individual producers can see if crop insurance programs are necessary to mitigate risks given projected cost and revenue levels.

Getting Started

A comprehensive enterprise budget should take into account three main parts: projected income/revenues, variable/operating expenses, and fixed costs.

Begin by estimating variable production costs as shown in the example irrigated corn enterprise budget at right. Be thorough in estimating variable costs as they are an important factor in profitability. Next, estimate fixed costs per acre then calculate results for total cost per acre. From this number, break-even analyses should be performed. This is the most crucial part of the budget; it provides estimated market price and risk protection demands of the enterprise. For example, if the producer in the enterprise budget had experienced average yields in the 125 to 150 bushel range, some form of risk protection such as crop revenue insurance might be used to guard against declines in price or yield.

For More Information

The Western Risk Management Library online at agecon.uwyo.edu/riskmgt contains a wide variety of articles, presentations, and software developed for producers and professionals.

For information and software pertaining to enterprise planning and budgeting, click on the desired topic and follow the links. For more information on crop insurance or to develop an individualized insurance strategy, contact a crop insurance agent. A list of approved insurance agents for Wyoming is at www.rma.usda.gov. Click on Agent/company locator under Quick Links, then Locate a Crop Insurance Company, then on 'clickable national map' in the first paragraph.

Example Enterprise Budget for Flood Irrigated Corn

Variable Costs:	Cost/Acre
Tillage/preparation	$20.00
Seed	$85.00
Fertilizer	$85.00
Planting	$10.00
Herbicides (3 apps.)	$30.00
Ditching	$7.50
Irrigation costs	$25.00
Irrigation labor	$10.00
Custom harvest	$25.00
subtotal	**$297.50**
Interest (6% for 9 months)	$13.39
Total Variable Costs	**$310.89**
Fixed Costs:	
Irrigation water taxes	$20.00
Real estate taxes	$5.94
Real estate pmts./interest	$75.00
Machinery depreciation	$20.00
Insurance	$10.00
Total Fixed Costs	**$130.94**
Total Costs/Acre	**$441.83**

Break-even Analysis	
Costs per acre	**$441.83**
Break-even Price:	
Yield Bushels/Acre	Break-even Dollars/Bushel
100	$4.42
110	$4.02
120	$3.68
125	$3.53
130	$3.40
140	$3.16
145	$3.05
150	$2.95
160	$2.76
165	$2.68
170	$2.60
Break-even Yield:	
Price Dollars/Bushel	Break-even Bushels/Acre
$2.50	177
$2.75	161
$3.00	147
$3.25	136
$3.45	128
$3.50	126
$3.65	121
$3.75	118

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Strip tillage can reduce expenses, increase moisture retention

By Sandra Frost

Strip tillage is technology developed to conserve soil in highly erodible conditions.

It involves slicing through crop residue from a previous crop with a coulter wheel, using a shank to open a slit, inserting fertilizer, closing the slit, and conditioning the seedbed surface for planting. All these operations can be done in one pass.

Strip tillage leaves standing residue between planted rows that breaks the wind and promotes stand establishment. Residue also entraps more snow than clean fields. Water infiltration can be better in a strip-tilled field than in a conventional field due to the depth of the slit. Usually, strip tillage requires fewer passes over a field than conventional tillage. Fuel and labor costs can be reduced.

Strip tillage equipment has been used more frequently in dryland or pivot irrigated fields than in furrow irrigated fields. In furrow irrigated fields, trash in the rows can hinder the flow of water. Current research by the USDA Agricultural Research Service Northern Plains Agricultural Research Lab in Sidney, Montana, examines conventional tillage and strip tillage performance differences in a sugar beet/barley cropping system using two nozzle designs (see www.ars.usda.gov/research/publications/publications.htm?seq_no_115=232485). In a five-year study, strip till sugar beets consistently yielded as well as conventional till sugar beets.

Fertilizer can easily be applied at two depths when the field is strip tilled.

At left are strip till rows compared to the standing residue on the right.

Soil texture is a factor in deciding what time of year to strip till. Farmers in areas with lighter soils can strip till in the spring without compacting soils. Where spring strip tillage is possible, a planter unit can follow immediately behind the strip tiller and do everything in one pass; however, in areas of heavier soils with higher clay content, fall strip tillage when soil moisture is modest may work best followed by spring planting. Planters used with strip tillage should be suited for high residue management and equipped with row cleaners to handle residues blown onto the planting strips.

Carefully planning a crop rotation is important. Here, residue from the previous grain crop is harvested off and chopped into small pieces to allow emergence of the new, strip till planted crop.

Front coulters cut the residue, and trash cleaners sweep residue away from the center. The shank rips a slot in the soil and places fertilizer. Fluted gathering coulters pull soil back over the slot, and the rear basket conditions the seed bed.

Fertilizer placement is precise with strip tillage. Strip tillage units can place dry or liquid fertilizer directly below the row crop at various depths using one or more fertilizer tubes. Placing starter fertilizer at seedling root depth gets the crop off to a good start. A deeper placement provides crop nutrients in early summer without another pass over the field.

A combination of three technologies makes conservation tillage more attractive to farmers than in the past. Round Up Ready crops allow for weed control with minimal passes over a field; guidance systems allow precise planting into strips prepared the previous fall; and strip tillage minimizes soil disturbance, thus promoting retention of soil moisture, development of soil structure, growth of macro- and microorganism populations, and increasing amounts of organic matter due to the breakdown of previous crop roots.

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