

# BARNYARDS & BACKYARDS



## Assess changes in the face of uncertainty with Risk Scenario Planning tool

The Risk Scenario Planning (RSP) tool helps users include the often-ignored risk and variability inherent in the partial budgeting process.

Instead of selecting a single value for budget inputs such as prices, the RSP tool allows the user to examine a range of values (maximum, minimum, and most likely) and their effects on the budget.

Problems often develop when choosing values in the budgeting process that do not account for risk; this approach can lead to flawed decisions further on in the analysis. The RSP tool helps show how a range of values (not just a single guess) can affect budgeting decisions and better account for an uncertain future.

### Using the RSP Tool to Evaluate Livestock Risk Protection (LRP) Insurance

The RSP tool uses a partial budget approach, which divides the financial consequence of any proposed management changes into four categories: added returns, reduced costs, added costs, and reduced returns.

For a working example, we will consider a southeast Wyoming cow-calf operation and its decision to purchase Livestock Risk Protection (LRP) insurance for feeder cattle. For a more detailed discussion of evaluating LRP using the RSP tool, see the RSP tool Technical Guide available at RightRisk.org under Risk Management Tools.

Our example ranch has 100 head of 500-pound steer calves to sell (500 cwt). We assume the basis is \$10/cwt (cash price is lower than the index price). We can set the tool to calculate total calf sales revenue and the potential LRP indemnity by entering the LRP price index value. Our best guess for the ending LRP price index is \$157/cwt, which gives us a cash price of \$147/cwt.

In the added costs column, we include the LRP premium cost of \$3.68/cwt for a total of \$1,840.

The entries and initial results are shown in Figure 1; total revenue for the sale of the steers of \$73,500 with an indemnity payment from the LRP policy of \$1,735, minus the \$1,840 in premium costs, results in a net benefit of \$73,395.


If we knew these prices with certainty, there would be no reason to purchase the LRP policy, as the premium cost exceeds the indemnity payment. We will use a feature of the RSP tool to evaluate ranges in the basis and index price levels to properly account for price uncertainty.

First, we assume the most likely index price per cwt. is \$157, the minimum \$135, and the max value is \$170. Likewise, to account for an uncertain basis, we set the most likely value at \$10, the minimum at \$5, and the maximum at \$20. In the next installment, we will examine the results of our risk analysis and how that information can help our ranch manager make a decision on purchasing LRP insurance coverage.

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Partial Budget For:				LRP Insurance Decision			
Positive Effects				Negative Effects			
Added Returns	Quantity	Value	Total	Added Costs	Quantity	Value	Total
Basis Value		\$ 10.00	\$ -	LRP Premium	500	\$ 3.68	\$ 1,840.00
LRP Price Index		\$ 157.00	\$ -				\$ -
LRP Coverage Price		\$ 160.47	\$ -				\$ -
			\$ -				\$ -
Calf Sales (cwt.)	500	\$ 147.00	\$ 73,500.00				\$ -
LRP Indemnity	500	\$ 3.47	\$ 1,735.00				\$ -
			\$ -				\$ -
<b>Total Positive Effects</b>				<b>Total Negative Effects</b>			
(Added Returns + Reduced Costs)		\$ 75,235.00		(Added Costs + Reduced Returns)		\$ 1,840.00	
			<b>Net Benefit of: LRP Insurance Decision</b>				<b>\$ 73,395.00</b>

Figure 1. Risk Scenario Planning Tool Entries to Evaluate LRP Insurance Decision



### Risk Scenario Planning

Version 1.11

[Click Here to Begin](#)

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**For more information**

The Risk Scenario Planning tool is just one of many risk management resources available at RightRisk.org. These risk analytics can help users quantify and address the risk and uncertainty in many different business decisions. Partial, enterprise, and whole farm budgeting tools are available as well. For more information on Livestock Risk Protection (LRP) and other insurance programs, as well as producer profiles, online tools, self-study courses, and other risk management resources, visit RightRisk.org.

**Livestock Risk Protection Insurance (LRP)**

- LRP is designed for livestock producers (fed and feeder cattle, swine, and lamb) to insure against declines in market price
- Contracts can be established for 70–100 percent of the expected ending value of the livestock
- Contract lengths are available for 13 up to 52 weeks
- Indemnities are paid when the actual market price is lower than the contracted coverage price
- Prices are determined by Chicago Mercantile Exchange (CME) indexes
- Total number of insurable head of livestock varies by species
- Actual cash market price has no effect on contract indemnities

## Keep more dollars in your pocket with less stress and better stockmanship practices

I have made every livestock-handling mistake possible.

Not until I started working with stockmen who were much better than me did I realize many of my actions in the corral were often counterproductive.

Overpowering livestock with loud noises and constant pressure may get the job done, but often causes significant stress on the animals and may create an unsafe work environment. Research has pointed out stress on cattle can negatively affect weight gains, reproduction, carcass quality, and animal health.

Minimizing weight loss due to shrink and reducing labor costs are some economic benefits I've seen ranchers take advantage of by improving their stockmanship and handling facilities.

Using the animal's natural instincts and behavior to guide your actions is one of the basic principles of low-stress livestock handling. For most livestock, one natural instinct is to maintain space between themselves and their handler.

Every animal has a "flight zone" that completely surrounds them (see diagram below).

You can achieve good movement in your livestock by manipulating the edges of the "flight zone." Similar to how horses are trained, apply pressure when you want the animal to do something and reward them by removing that pressure when they do it.

Be very conscious of the animal's "flight zone" and how much pressure is put on them when working livestock in the corral. Not only are they being pressured by our presence, they are

feeling pressure from the confined space in the corral. Too much pressure without any release can cause stress on the animal and may cause them to do something extreme, like jumping a panel or provoking them to fight.

Referring to the diagram below, every animal has a point of balance, usually near the shoulder area. The point of balance is important because you can cause animals to speed up (moving from head to tail past the point of balance), or cause them to slow down (moving from tail to head past the point of balance). Livestock behave this way because of their natural instinct to want to move around and get past the handler.

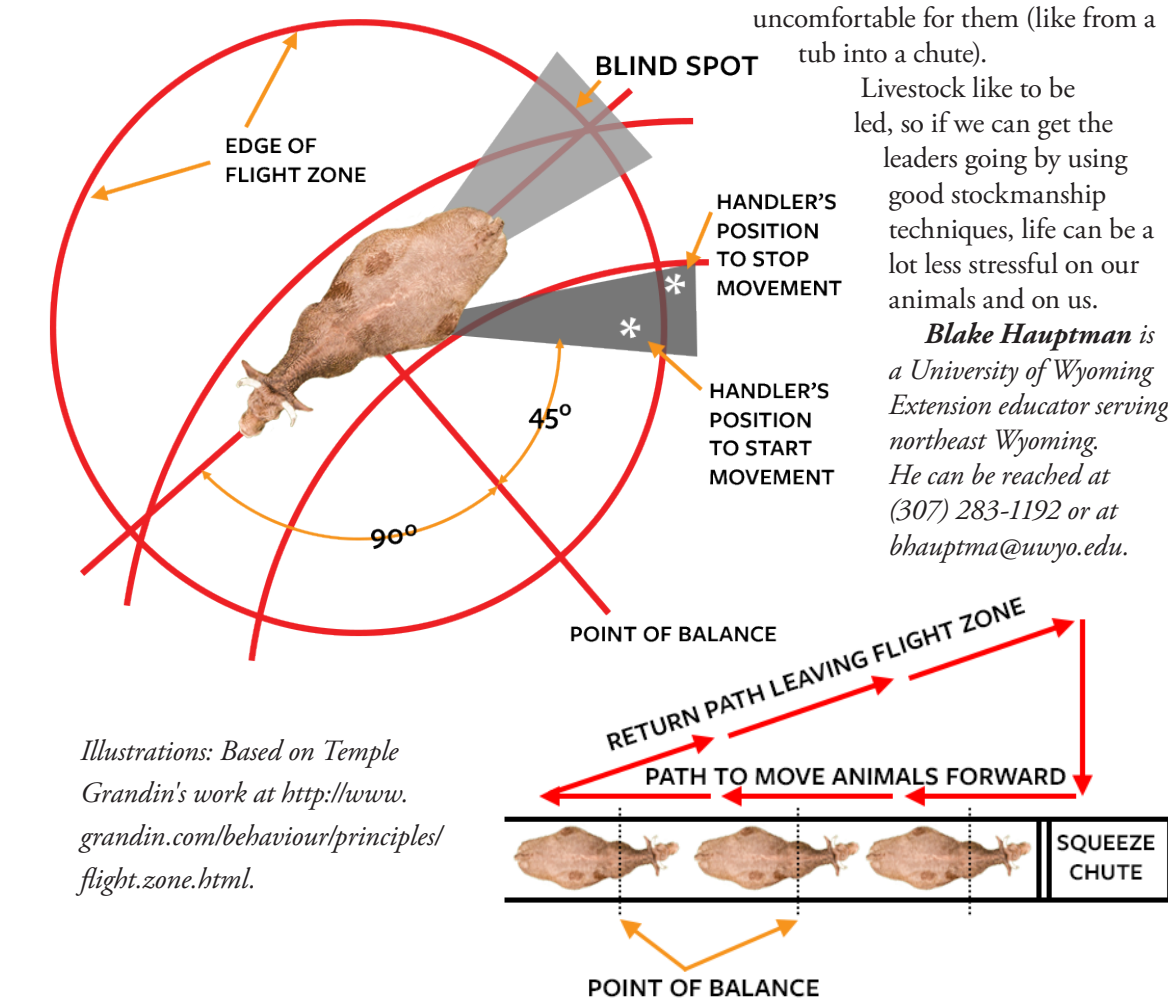
If you look at the second diagram, animals are being worked through a squeeze chute. Even though we have more control over the animals when they are in the lead-up to the squeeze chute, basic livestock handling principles remain the same.

To get the animals to move forward, start at the front of the chute and move past each animal from head to tail crossing their point of balance. Their natural instinct to move by the person should cause them to step forward without much force. Additionally, when walking back up to the chute, remember to exit and walk outside of the "flight zone." Failure to do this will send the wrong signal and may cause the animals to backup.

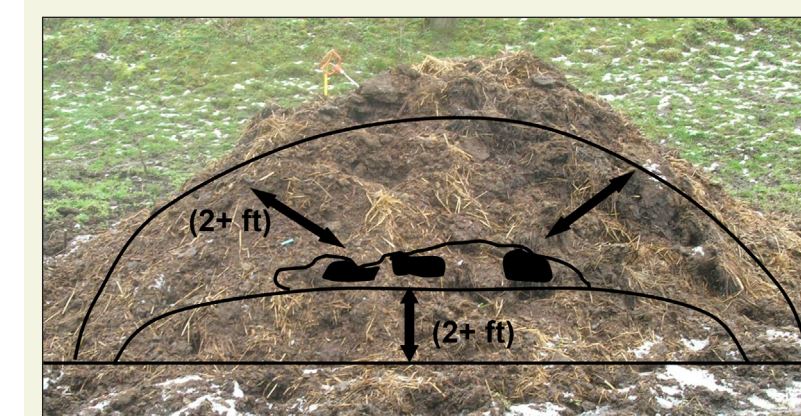
The basic principles of low-stress livestock handling are fairly simple and can be very effective when livestock and their handlers become familiar with using them. Oftentimes we try to force animals in back to push animals in the front and into a situation extremely uncomfortable for them (like from a tub into a chute).

Livestock like to be led, so if we can get the leaders going by using good stockmanship techniques, life can be a lot less stressful on our animals and on us.

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Illustrations: Based on Temple Grandin's work at <http://www.grandin.com/behaviour/principles/flight.zone.html>.



## Composting livestock mortalities on the farm

Cold and windy weather can be hard on aging or sick animals. There are two options for on-farm disposal of carcasses: burial and composting. They could also be delivered to a licensed landfill, rendering plant, or crematorium, or abandoned for scavengers.

### Wyoming Livestock Mortality Disposal Options

Access to rendering and incineration services for large animals is very limited in Wyoming but may be available in neighboring states. The Humane Society of the United States provides a listing by state of cremation and rendering services. Ask your veterinarian for local small animal cremation services.

Any animal euthanized by sodium pentobarbital injection (a common and humane method recommended by the American Veterinary Medicine Association) must be immediately buried (either on-farm or at a landfill), cremated, or properly composted to prevent secondary poisoning of wildlife or dogs that may scavenge the carcass. Rendering is not a safe method of disposal for euthanized carcasses. You may still be held liable even in the case of accidental wildlife poisoning.

### Composting Livestock Mortalities

In composting, aerobic microorganisms (bacteria and fungi) convert raw organic waste into stable, nutrient-rich organic matter. These microorganisms produce enough heat to raise temperatures inside the compost pile to well over 130°F and kill pathogenic bacteria and viruses. The compost microorganisms require food (raw organic wastes), oxygen, and water to thrive.

### Key Steps for a Successful Mortality Compost Pile

- Choose a well-drained site at least 300 feet from any stream, lake, pond, or well. Also consider the location of neighbors, other animals, and access roads. Be prepared to leave this compost pile alone for a full year if necessary.
- Start with a base of absorbent high-carbon material at least 2 feet deep and place the carcass on this base at least 2 feet away from any edge. Sawdust, straw, or hay works well for the base.
- Cover the carcass completely with another 2 to 3 feet of high-carbon compost material. Manure, bedding, old hay, silage, straw, and sawdust all work well.
- Watch carefully for signs of disturbance and settling, add more compost materials if needed. This is especially important during the first few weeks. It is normal for the pile to settle a little, but if any part of the carcass becomes exposed, immediately add more compost material.
- The compost will be ready to use in about four months to a year, depending on the size of carcass and compost materials used. After about six to 10 weeks of composting, the pile can be turned and mixed using a bucket loader to speed up the composting process, and multiple compost piles can be combined.

### Final Product

The finished compost is a source of plant nutrients like nitrogen, phosphorus, and calcium. Use as a mulch around trees and shrubs, or spread on pastures and hay fields. The finished compost can also be mixed with other raw materials and used in future mortality compost piles.

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