BARNYARDS & BACKYARDS

May 2009

University of Wyoming

UW Cooperative Extension Service | Profitable & Sustainable Agricultural Systems | RMA Risk Management Agency

A sharp pencil can be a great risk management tool

Enterprise budgeting and knowing your breakeven: Essential risk management

By James Sedman and John Hewlett

In today's production agriculture environment, having an effective risk management plan is fundamental to profitability and perhaps even business survival.

Whether you are a crop or livestock producer, having a sharp pencil when it comes to budgeting can be an excellent risk management tool. Production or enterprise budgeting is the first step in determining risk assessment and management.

Next, other steps such as purchasing crop insurance can be taken to help mitigate identified risks. The Western Risk Management Library, online at agecon.uwyo.edu/riskmgt, is an excellent resource for individuals looking to analyze costs through enterprise budgeting and by using other financial tools. Several links in the financial and production risk areas provide links to free software and articles designed to help with the budgeting process.

Benefits of Knowing Your Breakeven

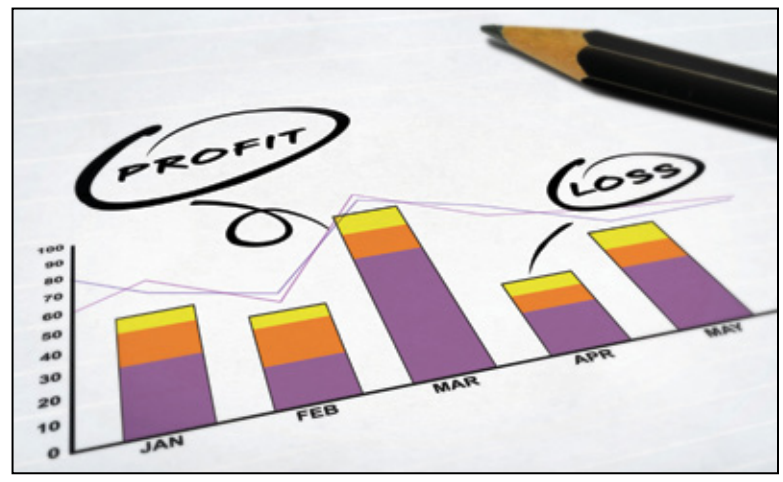
Too often, crop and livestock producers are "swinging for the fences" – that is, shooting for maximum yields instead of maximum profitability. With input prices at historic highs, maximum efficiency should be the goal for their application. For example, applying 500 pounds of nitrogen per acre to corn may result in the highest yield, but the marginal cost of applying that level of fertilizer probably outweighs the marginal benefit of the increased yields. Using extensive enterprise budgeting and past production records in combination can produce a much clearer picture of what level of inputs can be used and how to control costs.

Once total operating and fixed costs per acre or per head are determined, it is important to calculate a breakeven price for a wide range of yield levels. This can show what level of risk protection, such as crop insurance, is necessary to insure a certain revenue stream. For example, when the price of most fertilizers doubled and tripled last season, it may have been better for producers to reassess the levels applied to account for the price increase, not apply the same amount or more to try and achieve a higher and sometimes unrealistic yield to make up the difference.

Having a complete set of budgets and breakeven calculations for an operation can make the business much more nimble and responsive to changes in costs and any opportunities that may arise. A manager who has a firm handle on costs and breakeven prices will also be better able to make decisions on what enterprises are suited for expansion, downsizing, or elimination. In addition, such information is critical to deciding between alternatives such as custom hiring versus using on-farm labor.

Tools Available at the Western Risk Management Library Online

Producers looking for tools to help construct detailed enterprise budgets and breakeven estimates can find a wide assortment online at the Western Risk Management Library at agecon.uwyo.edu/riskmgt. Follow the "Financial" button on the left side of the page and select either the "Business Planning" or the "Software" links for interactive spreadsheet tools; or click on the "Production" button for articles on enterprise budgeting.



The library also has a wealth of information on production topics such as crop insurance, fertilizer management, and beef cattle software. For more information, visit the library online.

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Beetles killing trees in Wyoming; here's a battle plan

By Jeff Edwards

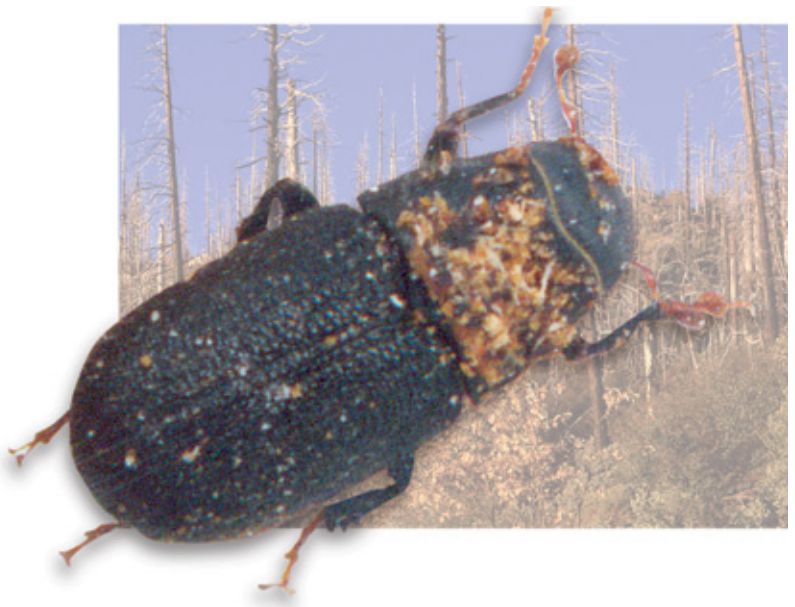
A multitude of bark beetle species are killing conifer trees throughout Wyoming.

Generally thought of as forest pest species, the beetles have begun to have an impact in rural and suburban locations—any place you thought you had a nice conifer tree established.

Environmental conditions have prevailed (primarily prolonged drought) that are contributing to the "perfect storm" for beetle infestations and spread. The drought has allowed populations to explode, and prolonged times with higher than average wind speeds and human transport of firewood have distributed them.

In general, bark beetles are small, dark-colored, and insidious, have one generation per year, and can travel on their own or with the transport of firewood.

These beetles will attack conifer trees in your tree rows, yard, and community. Trees most susceptible include moisture-stressed lodgepole, ponderosa, and other "5" needle pine trees. The needles of some conifer tree species like lodgepole and ponderosa grow in bunches of five. Host trees also include Colorado pinions, Engelmann and blue spruce, and Douglas, white, grand, and subalpine fir trees. Basically, these beetles are host specific; each native tree species has several bark beetle species that will attack it; however, non-native conifer species are just as susceptible to attack. Although there are bark beetles that attack junipers, the junipers seem to be less affected. Cedar trees do not appear affected at all.



Are My Trees Affected?

The first indication of attack is "pitching out" by the tree; small globs of sap (resembling popcorn or gum) will be exuded from the tree at the points where beetles have attempted to enter. Beetles penetrate the bark, lay eggs in chambers, and the larvae girdle the tree as they feed in the phloem layer of the bark. The beetles also transmit a fungal disease known as "blue stain" that also plugs the tree's plumbing. The tree may be able to defend itself by pitching out, but, if the attack is successful, the tree will die.

The U.S. Forest Service recommends that, beginning in April, trees you want to protect (5 inches in diameter and greater) be sprayed with products containing the active ingredient carbaryl to the point of run-off and up to where the diameter of the tree is less than 5 inches. There are several pyrethroid products available as well. Systemic products do not protect the tree from infestation and are not recommended.

The product label must indicate the formulation in question will be effective against bark beetles. An alternative to chemical prevention is the use of a synthetic pheromone (verbenone, an antiaggregation pheromone); it acts as "no vacancy" signs, and the migratory invaders should move on. None of the above products are guaranteed to protect the trees. When opting for chemical treatments, please read and follow all product label directions, or hire a professional applicator. Do not wait for the needles to change color to address the situation.

What Must Be Done?

Trees that show pitching should be evaluated; contact your local University of Wyoming Cooperative Extension Service office. Online UW CES contact information is at http://ces.uwyo.edu/Counties.asp.

If tree death is imminent, understand that the tree must be removed. If trees must be removed, it is best to do so prior to the end of May, and the wood must be chipped or burned at that time to prevent the spread of beetles to other trees in your community.

Chemical treatments are not advised if you see the physical signs of an invasion. If you cannot immediately burn the logged material, the U.S. Forest Service has developed a method for isolating cut wood and preserving for burning at a later date. This method involves using a chainsaw and ripping four cuts lengthwise and equidistant around the lumber.

Palletize the logs and wrap tightly in heavy, clear plastic. This method will contain the beetles upon emergence and allow the use of the wood on your terms.

The best defense is to reduce environmental stress on your trees … keep them adequately watered throughout the year. Our driest months generally occur in the winter; it is recommended to water these months as well. Water can be applied once per month on a slow trickle for several hours at four locations in the drip line around the tree. This watering method will keep the tree hydrated, prevent winter stress or winter kill, and reduce the chance of successful beetle invasion.

For more on wintering watering, see the UW CES bulletin *Winter Watering* at http://ces.uwyo.edu/PUBS/B1186.pdf .

Look at a tree in the spring. If it has nice long "candles" (new growth), it is generally healthy. If growth is stunted, the color is off, or it is dropping a large amount of needles, there is probably a biological reason. For more information about this topic, please check the Web sites below or contact your local county UW CES educator.

- www.fs.fed.us/r6/nr/fid/fidls/fidl2.htm
- http://na.fs.fed.us/spfo/pubs/fidls/we_pine_beetle/wpb.htm

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