

Total Ranch Management: Meeting Ranch Goals

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Ranching Today

Since 1973 ranchers have had difficulty in making a good living. Today many ranchers, old and new comers alike, face bankruptcy. Why are some ranchers surviving while others are at the end of their rope? Some ranchers have been lucky, others are doing the right things, and many are selling some of the ranch each time trouble strikes.

Reluctantly more ranchers are adding enterprises, (i.e., hunting) to make more money from their limited resource base. Others have relied on genetics, new breeds, brush control, grazing systems, etc., to increase current levels of production. Droughts, inflation, labor, increasing costs, and other problems have meant living through one crisis only to face another. When will the good times in ranching return? In our opinion, there will be few windfall profits in the future.

The tremendous explosion of research findings, new products, information, and salesmen have provided all kinds of potentially valuable suggestions. Each has value but there are no miracle cures that do the most important task required: management is the key to doing the right things that, when summed together, make all operations successful today and in the future. What you get will be what you earned by doing the right things. Total Ranch Management is one approach which can help you to determine the right things to do and to improve management to achieve realistic goals.

Management Responsible for Success or Failure

Crises such as drought, poor markets, high interest rates, etc., are often heard as reasons given for poor ranch performance. However, "the successful rancher is that one who can, firstly, identify the different factors which will affect the operation of the ranch, and secondly, can anticipate the changes in them that will influence his success. This successful rancher is the one who avoids the crisis in the running of his enterprise....No operator should allow himself to get into the crisis situation, but should arrange his management style to anticipate the changes which will be necessary in the operation and make those changes effectively in a timely manner" (Wilcox, 1982).

The difference is that management is fully responsible for ranch performance and doing the right things to make the best of situations and opportunities. Management directs the business and use of all resources, thus determining the future outcome. What is important is what management achieves not what is done. You do things to achieve certain needed results. These results must add up to needed *Total Ranch Benefits* for improvement to occur. Achievements,

good or bad, are the results of your decisions. Total Ranch Management can help you plan and establish necessary priorities and procedures for improved decision-making.

Every decision, including no action, results in conflict that is stressful and challenging for the manager. How you cope with these conflicts determines if you prevent crises or ignore reality and shift blame for poor results to "influences beyond your control." Once it becomes a crisis, you have few alternatives. Janis and Mann (1976) found that knowledgeable "reappraisal would reduce stress both before and after an operation....A vigilant, coping person leads to improved decision-making. The balance sheet procedure is a predecisional exercise that requires a decision-maker to confront and answer questions about potential risks and gains he had not previously contemplated. Without a systematic procedure, even the most alert and well-motivated person may overlook vital aspects of the alternatives, remaining unaware of some of the losses that will ensue from the preferred courses and maintaining false expectation about potential gains." The decision-maker who "evades the conflict by procrastinating, shifting responsibility to someone else, or constructing wishful rationalizations and remaining selectively inattentive to corrective information" becomes a crisis manager. "Crisis management can be avoided if the operation of the ranch is adequately planned using all the resources which are available" (Wilcox 1982).

Total Ranch Management Concept

Total Ranch Management is the balancing of resource uses for the best and highest ranch benefits, directing ranch change, and maintaining diversity and flexibility to meet future consumer demands. A rancher must understand relationships among all ranch resources (people, finances, land, vegetation, climate, animals, time, etc.), activities, and external influences; evaluate the impact of each decision in advance; effectively implement and controlling all activities; and make necessary changes to optimize outcome and reduce risk. This is an impossible task if the ranch has not developed a logical and practical approach for analyzing information, evaluating plans, and directing daily operations. It is doubtful that any person can accurately assimilate the mass of information and predict the overall ranch outcome without detailed planning and evaluation.

Total Ranch Planning identifies where you want to go (strategic ranch goals or achievements), where you are, how you want to get there, when you wish to arrive, who is going to drive, and how much it will cost. Through goal setting and the planning process, a rancher can concentrate effort and resources for achieving meaningful results without "frittering resources on a little of everything" (Maddux 1984). Only through this process can you decide whose advice is timely and best meets your goals.

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A "balance sheet" approach for simultaneously planning, evaluating, organizing, implementing, and controlling all ranch activities and allocation of resources is the basis for Total Ranch Management to meet ranch goals. The balance sheet approach allows a rancher to separate components of the ranch for detailed planning and combine results to evaluate achievement relative to ranch goals. The adopted plan then serves as a tool for implementation and control as well as needed information for future planning. "What if" alternatives can be evaluated in an orderly manner before crisis situations develop. Better decisions should result with less management stress.

Total Ranch Management Planning

Eight general planning steps are used in evaluating the allocation of all ranch resources and the selection of appropriate management alternatives. The process is cyclic with continual feedback and re-evaluation each time conditions change. Through repeated evaluation of plans compared to actual responses in light of current and forecast conditions, management makes necessary changes. A plan will seldom remain unchanged for very long. Those that remain static, doing the same thing year after year, will likely be victims of the next crisis.

The eight planning steps suggested are as follows:

1. *Establish long-term strategic ranch goals.* Write down why you own or operate a ranch. Goals should identify where you want the ranch to be in 5, 10, 15 + years. Goals should be SMART i.e. S-specific in what is to be accomplished, M-measurable, A-attainable, R-related to other ranch goals, T-trackable (Blanchard et al. 1985). Goals should be prioritized and not conflict with each other. When resources are limited you cannot do everything. Once a higher priority goal is achievable, other goals can have priority for use of remaining resources. If you place priority on goals or enterprise objectives less important to ranch survival, your ranch is at risk.
2. *Inventory all ranch resources.* The ranch resources are constantly changing and limit the alternative uses and techniques that are applicable. A general listing of resources is most useful in the beginning. Resources include personnel and skills, land, vegetation, animals, buildings, capital, borrowing capacity, minerals, investments, etc. As enterprises are selected, more specific inventories are necessary to effectively balance resource use with supply to prevent over-extending a resource beyond recovery. A balance sheet identifies resources available, growth, and utilization throughout the planning horizon.
3. *Identify potential enterprises for use of resources.* This allows management to re-allocate resources to enterprises that may better accomplish strategic goals. The enterprise of today may be the dinosaur of the future. Strategic goals to produce a certain product (enterprise) may be unprofitable in the future. Select enterprises and tactical strategies to accomplish strategic goals. If profitability or a certain degree of income is necessary for a ranch then consumer demand must be of high priority. Comparing potential enterprises with resource needs allows management to direct changes in ranch resources for new enterprises and avoid loss of flexibility. Maintaining resource diversity allows flexibility to

combine or change enterprises.

4. *Develop general production processes for potential enterprises.* The production process identifies the specific resource needs, management requirements, and expected production.

5. Based on the potential production process for each enterprise, *identify expected income and expenses and determine the Gross Margin* (income above variable costs) *per production unit.* Determine the number of production units that could be produced based on the resource inventory. Optimization procedures should be utilized to select the best combinations of enterprises utilizing the same limited resources.

6. *Select the appropriate combination of enterprises that best meet ranch goals.* Determine the ranch overhead expenses and compare with expected Total Ranch Gross Margin from the selected enterprise combination. Make adjustments in enterprises if needed. Needed production units to breakeven can be determined by dividing overhead by Gross Margin per production unit. If profitability is a goal, then the resources must be available to produce sufficient ranch gross margin to meet overhead plus profit. If the enterprises are inadequate to meet desired goals, changes will have to be made after critical analysis of the five factors affecting profits: (1) increased production per unit, (2) increased production units, (3) decreasing overhead costs, (4) decreasing variable costs, and/or (5) improve product marketing.

Enterprises may have to be added or deleted to best meet ranch goals while living within resource constraints. Selected alternatives must be considered relative to resource limitations, applicable technologies, and enterprise performance to achieve total ranch goals. Comparison of enterprises requires use of a common resource base. For example, animal and hay enterprises are alternatives for selling sunlight energy and soil nutrients accumulated in forage. These enterprises are limited by the forage resources and weather conditions. The highest and best use of forage resources would be the combination of enterprises with the highest Total Ranch Gross Margin with due consideration of weather and market fluctuations. Enterprises would be compared on the basis of GM per stock unit (forage demand) and total number of stock units that can be grazed.

7. *Develop detailed production plans and a calendar of activities* to best accomplish enterprise production or Gross Margin needs. These plans establish tactical goals of achievement necessary for an enterprise to be most effective in contributing to Total Ranch Benefits. Conflicts between enterprises are resolved by establishing policies and priorities. The activities calendar identifies when things should be done, when things will happen and what can be expected.

Throughout the year production standards are established for each enterprise to monitor progress toward accomplishing annual goals. Projected versus actual performance is compared to monitor progress. A stockflow plan is used to identify monthly inventory, condition, and expected performance as well as resource needs.

8. *Develop a total projected "Cash Flow" plan by month for the ranch.* A "cash flow" plan identifies the monthly input, output and balance of a resource for more effective allocation. Usually this refers to financial cash flow; however, the

concept applies to all resources. In addition, a projected cash flow identifies future resource needs, thus allowing a rancher the opportunity to store resources (cash, feed, forage, etc.) for periods when income or forage growth is not likely. Periods of "abundance" can be rationed more effectively. Through the cash flow type analysis resource uses can be monitored and when planned use is compared to actual use, crisis situations can be predicted. Forecasting of possible resource shortfalls allows a rancher to consider "drought" alternatives or loan options, etc. Balance sheets and profit/loss statements are used to monitor profits, changes in the ranch business, and net worth.

A grazing plan is a cash flow of forage and land resource needs. The plan shows where and when forage will be demanded by each enterprise as well as the forage remaining after each grazing period. The grazing plan would also identify for each pasture, resource production needed for the enterprise to effectively produce throughout the year. The forage demand (forage required) can be compared to periodic pasture inventories to forecast shortfalls or opportunities to increase production units.

Resource Allocation

All resources are limited over time. Hence, a rancher must utilize the appropriate combination of resources without resource depletion if future use is necessary. The resource cannot be harvested beyond its capability to produce future needs. For example, money invested in a savings account at 10% interest requires a base resource (working capital) of \$10,000 to yield a harvestable resource of \$1,000 annually (minus associated costs). To maintain the same gross income next year at today's value, assuming a 3% rate of inflation, means \$300 must be added to the resource base each year leaving only \$700 for use. A harvest efficiency of 7% (\$700) would be possible without resource deterioration. The same principle applies to all renewable resources, e.g., range forage, livestock, wildlife, etc. A healthy "working capital" is necessary to produce the harvestable product from a resource. Depleting the "working capital" will cause next year's harvestable resource to decrease.

Each resource has specific inherent characteristics that determine the level of harvest possible under current conditions without decreasing future potential production. If a rancher has to over-graze to meet current debt obligations, immediate-to-long term survival is in jeopardy unless priority is given to allow range to recover.

Overstocking to take advantage of short-term opportunities can effectively contribute to Total Ranch Benefits. However, continued overstocking leads to more crises and loss of future productivity. Most ranch resources have to be overextended at times. Through adequate planning, recovery for a resource short fall can be scheduled and other resource uses adjusted. For example, reduced stocking may be necessary for range recovery after overextending the forage resource. Other enterprises could be used to offset potential losses of income during the recovery period.

Flexibility reduces risk when available resources are below normal. When all the forage resource (asset) is allocated to a cattle forage demand (liability), stocking rate must be flexible since forage production is not predictable. Periodic adjustments based on current forage supply are necessary

to prevent over use, increased costs, reduction in enterprise performance and potential losses.

Unused or underused resources offer opportunity to make changes or meet unforeseen circumstances. New enterprises or current enterprises may be expanded or added. However, if an enterprise is forced to utilize less preferred resources, the primary resource will be overutilized first. For example, cattle prefer grass. If they are forced to use browse as a major diet component, grasses will be overgrazed. Dependence on browse to maintain the enterprise increases. Continued forced use of browse by cattle decreases grass productivity allowing increases of abundant unpalatable species. Selection of an enterprise, i.e., deer and/or goats, that readily consumes browse may become a better enterprise choice. The same situation exists in rough topography. Cattle prefer bottom sites. When forced to use hillsides, the most productive grazing areas in a pasture are depleted. Hence, a critical resource that is limited prevents full use of other resources that are abundant but less preferred. Limited capital resources may prevent increasing stocking rates even if grass is abundant.

Where to invest resources, including capital, to obtain the best response will vary among ranches. Since most resources are limited, they need to be allocated to those uses that provide the highest rate of return with lower risk. Investing in an enterprise to the point of diminishing return maximizes income from that enterprise but fails to consider other alternatives that may return greater income or benefits per unit of resource invested. The higher the gross margin per unit of production harvested, the greater the value obtained from resource improvement, hence more expensive improvement practices may become practical. Before improvements are made, the enterprise should be as effective in use of the existing resources as practical.

Summary

Most ranchers today are faced with increasingly frequent crisis management decisions. A rancher completely satisfied with the current situation need not change but tomorrow may be another story. It takes time to change and Total Ranch Management requires more in-depth planning and application than many ranchers are accustomed to. The rewards of this program will depend on the rancher. Ranchers should, after implementing a Total Ranch Management plan, feel more in control of the ranch and its future.

Success and failures will continue to impact all ranchers, but the real impact will differ depending on the selected ranch goals, necessities, available resources, and thoroughness of management. Goal establishment alone "may produce growth" (Giles 1981). Facing the sometimes hard facts of reality through good planning sometimes "jars us into modifying objectives" (Maddux 1984). "Many times I hear, 'My operation is too small for that or too much paper work for me.' Planning can be simple, straight-forward and an ongoing process that fits any size operation. Those who fail to take advantage of it are missing a good bet." If it won't work on paper how can it work in practice!

Going through the planning process helps you to identify the critical decisions and assumptions. The completeness of

Total Ranch Planning should increase with experience and understanding. Traditionally, we have trained ranchers in Animal Science, Range Management, Wildlife Management, Agricultural Economics, etc. All of these disciplines must be molded in a logical framework. Total Ranch Benefits can only be obtained by thinking and acting in a Total Ranch context. Over-emphasis in any phase detracts from the ranch operating as a unit and often over-extends some resources while under-utilizing other resources. The manager becomes a resource manager rather than a cattleman, sheepman, rangeman, etc.

The Total Ranch Management concept provides an integrated approach to ranch management. Success or failure still depends on management. Technologies, computers, and other "advancements" cannot replace management. They are simply tools and alternatives available when and where needed.

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Nuclear Accidents and Rangelands: The Effect of Chernobyl on the Grazing Economy of North Wales

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Fortunately our experience with the effects of leakages of radioactive materials resulting from accidents at nuclear power stations is extremely limited. When such an accident does occur, as was the case in Chernobyl, USSR, on April 26, 1986, it provides information which can be utilized to reduce the consequences of any future accident. A substantial quantity of radioactive material was released into the atmosphere as a result of the explosion at the reactor. It was almost a week later on May 2 that radioactivity from Chernobyl was detected in the United Kingdom, some 2,000 km from the site of the accident. Over the weekend of May 2 and 3 some areas of North Wales, Scotland, and Cumbria in northwest England received a heavy rainfall which washed a considerable amount of the Chernobyl material out of the atmosphere and deposited much higher concentrations of radioactive substances on the ground than were experienced in most of the remainder of the United Kingdom. Sheep and cattle grazing are the predominant form of agricultural production in the areas of heavy contamination. Increased radiation levels had a major and long-lasting effect on both the existing grazing

system and the local livestock economies. British officials attempting to deal with the problem were hampered at the outset by poor or non-existent information. The experience gained, however, provides considerable insights into the likely effects of future low level nuclear contamination of rangelands and the types of policies which should be implemented to minimize the resulting disruption.

The areas of North Wales affected by radiation include the island of Anglesey and parts of the Welsh counties of Gwynedd, Clywd and Powys, an area of approximately 100 km west to east and 90 km north to south. Within the area there are approximately 5,100 farms. Livestock raising is the predominant agricultural activity. Dairying is conducted on the better land with sheep or mixed cattle and sheep operations concentrated on the poorer uplands and hills. It is the latter areas which were directly affected by the Chernobyl radiation. The grazing system is known by its Welsh name of "hafod a hendre" and involves the seasonal movements of animals from lowland winter pastures to "rough" grazing on largely unimproved hill areas in the summer (Owen 1981). *Agrostis* spp. is the major plant in the grazing areas. On improved pastures either rye-grass or *Agrostis*-rye-grass mixtures are also common. Fescue-*Agrostis* pastures constitute the main communities of unimproved hill grazing areas

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