managerial procedures required for controlling brush with goats as well as ways and means for obtaining maximum milk and meat production during the process. Yes, goats have been much maligned but they are very necessary.

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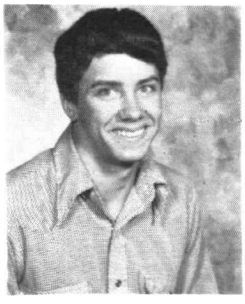
The Range Cow: An Energy Efficient Food Producer

Reeves Brown



As our supply of fossil fuel continues to decrease and prices soar at an ever increasing rate, only the energy efficient will emerge to survive in today's world. One of the most energy efficient producers that we have is the range cow. With her ability to convert forage and roughage into food, she is an efficient user of much of our rangeland. Besides providing us with a source of highly nutritious food, the range cow supplies hides, the source of many leather goods in use every day. She also provides numerous other by-products used by our society such as insulin, soap, glue, china, hairbrushes, and violin strings.

It is true that the range cow is a source of numerous goods but one may ask, "Is she truly energy efficient?" Let's take a close look at her: Her average life span covers about 12 years. Most of her days are spent grazing the rangeland. Her lifetime work is raising about ten calves.

With proper livestock management, she will give birth to a calf every spring. The following 6 months each year, the cow will nurse and look after the calf while it gains about 2 pounds every day. Come October the cow will have produced approximately 500 pounds of calf. Mother range cow repeats this production cycle over again and again, then usually ends up as hamburger, steak, and roasts herself when her productive life is over.

For every range cow, this adds up to over 3,000 pounds of beef for our dinner tables plus the hides and other discards used by the clothing and medical industries. Fresh beef continues as the top sales item in grocery stores accounting for over $16 billion or about nine percent of all grocery store sales in 1979. Well over $30 billion worth of beef was consumed in the United States in 1979.

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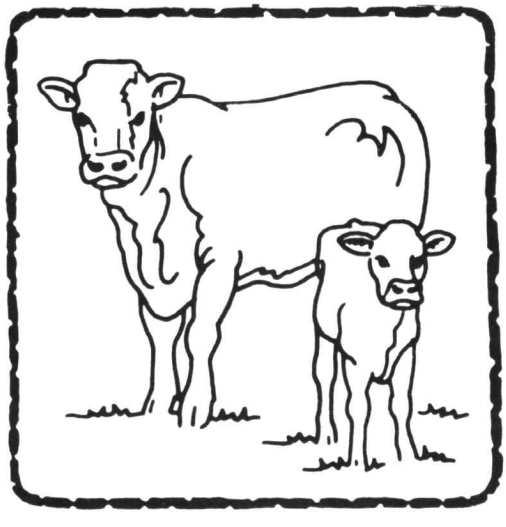
This transformation calls for very little fossil fuel directly assignable to the range cow. During those 12 years the cow travels about on her own four, converting grass into milk, meat, and hide. The rancher looks after these mobile grass harvesters with little expended energy from fossil fuel. Most herding and doctoring is done on horseback. The horse eats the same grass and drinks the same water as does the range cow. About the only fossil fuel expended directly to the range cow is that used in providing her hay for a few months during the winter (Montana) and for truck transportation when she heads for market. In many cases she trails to market as in the past.

In order to get the maximum and most economical production of red meat from the range cow, we will have to use our range resource more wisely. Let's take a close look at this land base called rangeland.



There are approximately 750 million acres of rangeland in the continental United States. The big majority of it is in the seventeen western states. It supports annual and perennial native plants suitable for grazing.

The harvest system for such forage which is the least energy intensive is that of the grazing cow and sheep. The range grass captures solar energy and converts it into a chemical energy which the range cow in turn converts into a high protein meat—a dietary base that keeps this nation one of the healthiest in the world.

Native grass is the cheapest of all feeds and provides the greatest amount of total digestible nutrients for the money. This is the main reason that much of the rangeland has been overused. A national survey made two years ago indicated that about one-half of our rangeland is in less than good condition with vegetation production estimated to be only about forty percent of potential. In other words, we have the potential to increase substantially the red meat production in this country by improving our rangelands through range management practices. Going about increasing range production varies with the area and the ranch operation. One can normally figure that it will be economically feasible to apply improved management practices where remnants of desirable species occur. Sometimes this may require consulting the opinion of a range specialist.

In most cases, improved range condition and production will come with cross-fencing, developing ample livestock water and implementing a grazing system designed around the plants' needs. In some areas additional improvements may be needed such as brush management control or reseeding.

A sizable portion of our rangeland is publicly owned. This public land provides about 17% of the total forage needed for beef production in the eleven western states. Today, many are advocating the removal of the range cow from public lands to reserve and protect these lands for other uses such as recreation and wildlife. Actually, many proper livestock grazing practices are compatible and complementary with other range uses. Livestock, especially cattle, have been used as a management tool to improve wildlife habitat and range condition. Improved range condition will improve production, promote diverse wildlife habitat and improve the condition of watersheds. Elimination of the range cow from public lands would remove a sizable food producing resource base, increase the dependence on high-cost feedlot feeding and cause a considerable increase in the price of beef at the store.

Because of our large amount of rangeland in the United States, our beef costs are one of the cheapest in the world. Today, in Japan, for example, boneless sirloin is over $15 a pound, in Germany it is over $6 a pound, and in England $5 a pound, while in the United States we can purchase it for $3.67.

In summary, if we improve and maintain high forage production on both private ahd public rangelands, the energy efficient cow will continue to provide an ample source of high protein meat and other products at affordable prices for present and future generations. ●