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A RANCHER'S VIEW OF RANGE IMPROVEMENT

J. K. Sexton

Mr. Chairman - Members of the American Society of Range Management - Ladies and Gentlemen:

Your chairman announced my assigned subject. That subject is certainly too large for me to cover it in its entirety, because each ranchman's ideas on it would be influenced by his own physical ranch situation. So all I can tell you about it would be my general thoughts on the subject.

Most livestock producers are engaged in the business they are in to make a profit. It's as simple as that: "The Profit Motive".

What is our problem? We have been caught in a two-way economic squeeze. First; the cost-price squeeze, wherein livestock prices dropped faster than livestock production costs. Second; a competitive land use squeeze, where urban growth, along with agricultural crops supported above the cost of production, a multiple use theory, brush encroachment and/or other forms of range deterioration, keep cutting the area available for livestock production.

On the other hand, population growth demands that livestock growers ever increase the production of food and fiber.

Professor Edwin C. Voorhies, chairman of the Department of Agricultural Economics at the University of California, tells us that "We are today feeding 55 million more people than we did in 1919 with very little more land in use and with 35 percent less number of workers to do this greatly expanded job of production." It has taken and will continue to take Efficiency, Management, and Continuous Progress to do this.

Historically, America's growth and development has been a succession of "producing more and selling for less". I think that that is both our problem and the answer to it. The job will be done. We can do it. If we don't, then someone else will.

We can do it by: Producing more pounds per hour, more pounds per animal, more pounds per acre.

Now from a rancher's viewpoint, we have to tackle the problem from all three of those angles. But I suppose that here today you are more interested in the production of more pounds per acre, although many of the practices that would increase our production per hour or per animal, also increase production per acre.

What then are some of the ways we are going to get more pounds per acre. I think one way would be to get a better type of ground cover. Brush removal and control would do so and might be accomplished by: fire, spray or mechanical means. Here in California, Madera County has done a fine job by fire. Lassen and Modoc Counties have improved the carrying capacity of sagebrush ranges by spraying by plane. Stanislaus County is improving much range by mechanical clearance. I cite these as just a few of many brush removal projects, which to me mean from three to ten times more pounds of livestock produced per acre.

We can improve the quality and volume of feed. Reseeding in many parts of the state has increased yields three and four fold, not only through a larger volume of feed but also in a longer grazing season. We have one field at home, that four years ago we planted to Harding grass, alfalfa, rose clover and crimson clover. Its yield in pounds per acre has increased some three and a half times.

Range fertilization is demonstrating it will do the same job. A neighbor in Glenn County, has increased his beef production from 21.2 pounds per acre to 100.9 pounds per acre or about four and a half times, with an application of fertilizer comparable to 16-20. (108# urea, 126# single super)(130day grazing season).

Better area grazing distribution which can be achieved by water development and placement, more fencing correctly placed, salt placement and supplemental feeding, to name just a few, are practices that will produce more pounds per acre.

Combination livestock use. The livestock wars of yesterday and present day western pulp fiction, tell us that we can't run sheep and cattle on the same range. By government edict, they tell us we can't do it now if the range is under government jurisdiction. On the other hand some range operators who aren't bound by tradition or edict, have increased their production per acre by correct combination use. I saw one range last summer, where water development, fencing, and dual livestock use, had increased the pounds per acre return to the operator some 20 percent. On the other hand, the adjoining public range, unfenced, no water development, and a single use had a carrying capacity 7 percent of what it had forty years ago.

Better genetic selection of livestock. At home, we have an individual cow production record in our commercial cow herd. I note that last year, a seven year old cow, with a university grade of 2, weighing 1220 pounds, produced a 400 pound calf at 210 days weaning time that graded 3+. Another cow eight years old, grading 2-, weighing 1170 pounds, raised a 515 pound calf, same age at weaning, that graded 2-. Certainly, both cows must have required very nearly the same amount of grass to raise their calves but made quite different returns per acre or per animal. To put the same thing another way, it cost us eleven cents per pound cash to raise a weaner calf in 1953. The top 10 percent of the cow herd raised weaners at a cash cost of nine cents per pound, while the bottom 10 percent of the herd produced weaners at a cash cost of thirteen cents per pound.

Soiling or green chop feeding seems to be a good management practice on many of our irrigated lands in this state, increasing the pounds per acre produced some twenty to twenty-five percent.

It should seem apparent that many of the practices that would increase our production per acre also increase our production per head and/or per hour. Any practice that increases weaner weights, increases calving or lambing percentage, and decreases death loss, helps us cut our cost of production. And since we are in this business to make a profit, we have to keep our cost of production below the price that the consuming public will pay for our product.

This group gathered here at this convention, interested in range management, divides up into sub groups, those who are engaged in basic research, those who teach or disseminate the facts found and proven, and those who use the facts in practical application either as administrators of public lands or as private operators, activated by the profit motif.

To the basic researcher, I would say: Keep close to the man on the land, find out what his problems are and seek for a solution rather than working on problems that might be of more personal interest to yourself. Don't be too concerned with trying to figure out the cost of a certain operation to the private operator. Just tell him the results in pounds of increased production he might expect from a certain practice. You know, the private operator can do the job cheaper than you can, and cheaper than you think he can, if you just sell him on the idea that he can make a profit.

To the teachers, and our Extension workers are teachers too, I would say: Strive to give the broadest dissemination of information and means of application, relating to basic research findings, using all the teaching technic available. Don't let basic research get too far out ahead of practical application.

To the administrators of public lands: I have seen some fine pilot plants that you have set up, demonstrating just what range improvement can mean in more production per acre. I doubt if you or I will see the day when Congress will make appropriations sufficiently large, so as to enable you to embark on large scale improvements, so as to get all possible use out of the vast holdings under your administration. You can go a long way in your range improvement program though, if you let the little private operator, activated by the profit motif, help you. For example; last summer on the California Section's field trip, we were shown a small stock watering tank, the Forest Service had just completed up in Lassen County. I remember Joe Thornton telling us that the tank had cost about $275.00 and that it would probably increase the carrying capacity of that part of the range some thirty head of cattle. But the increase in revenue in grazing fees derived from the increase of thirty head just wouldn't justify the capital outlay, and that the Service just couldn't ask for the money necessary to put watering tanks everywhere that they would be needed to get the most use out of the available grass.

Now I don't know who the permittee in that particular area was, but I do believe that if he had a pencil that was halfway sharp, he would agree to expend $275.00 on a range improvement, if he was told that the thirty head increase carrying capacity was his. It wouldn't be a capital outlay to him, if he so desired he could expense the item the first year. So use that part of your regulations more, wherein you can work out a program of range improvement with a permittee, giving him a vested interest in the increased carrying capacity his investment creates, then publicize the fact, when you give such an increase, so other users will also want to cooperate.

To the private operator: Livestock production is changing from a "way of life" to "big business". Our capital investment per worker employed is larger than most segments of industry. Our output per man or the individual efficiency gain, has been as good as industry. (89 percent in 15 years in agriculture vs 3 percent per year in industry) (farming would likely account for more than livestock production).

The time it takes ideas or practices to move from basic research to practical application has been cut in half. Our managerial decisions have to be right better than 51 percent of the time or our costs will outrun our production. So I think each private operator will have to analyze his own physical resources and needs. Then apply those practices first that will quickest show him the greatest economic gain for the dollar he has to spend, keeping in mind that the improvements should be kept in balance. The live animal must each three hundred and sixty-five days in the year and it does no good to increase the carrying capacity of a seasonal range unless the complementing range will or can be made to carry such increase.

I remember reading in the "Journal of Range Management", a member's idea of what the words range management meant. The word usage was broken down into two parts, Land use and Range Science. What I have tried to say, I think, would relate to range science.

Land use would be a social problem of importance to our whole economic society. The ultimate goal of total good range management will never be reached until all segments of our economic society sit down together and discuss land use and decide just how many ducks, deer, elk, antelope, sheep, cattle, and other grass-eating animals are going to share in the use of our greatest Economic Asset, GRASS.

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RANGE LANDS AS A NATIONAL RESOURCE

Dr. R. T. Clark

Introduction: In accepting this assignment, I had in mind several things, but principally two considerations:

1. That I was one of the members who founded our Society of Range Management a few years ago, and

2. That my interest in the subject of range lands goes back to the early twenties when I emigrated to Western Canada and later to Montana where I was instrumental in getting a series of courses in Range Management established at the College of Agriculture and served as the first Head of the Department of Range Management. Incidentally, in this capacity I managed to inveigle Harold Heady to come West again.

Apparently, the Committee had in mind the point that I should discuss the topic of range lands from the livestock producer's standpoint. That I shall try to do in this presentation, for at various times in my experience I have been responsible for sizable herds and flocks of livestock using public lands, particularly Forest Reserve lands, and, therefore, appreciate some of the problems involved.

The Program Committee has assured me that if my treatment of the topic fails to measure up it will be purely symbolic of the relatively large size of the assignment to be covered in the brief period allotted.

The Area - Its Importance and Its Problems. For the purposes of my presentation I shall confine my remarks for the most part to the area comprising the eleven western states. Harold Guilbert and George Hart of the University of California, in estimating the importance of range, pasture, and roughages, stated that in California in the early 1940's, at least 90 percent of the total beef tonnage was produced from these three sources of feed nutrients, with less than 10 percent of the tonnage being derived from concentrated feeds. For the United States, a figure of from 10 to 15 percent of the beef tonnage was estimated by these two Californians as being derived from concentrates.

More recent U. S. Department of Agriculture unpublished data estimated and compiled by R. D. Jennings for the Western Region only shows that 62.88 percent of the feed units utilized by the four roughage-consuming classes of livestock--beef cattle, dairy cattle, sheep, and horses--came from pastures, 27.11 percent from harvested roughages, and only 10.01 percent from concentrates.

If we break the feed units from pastures down we find that Jennings' data show that 24.29 percent came from cropland pastures, 38.69 percent from open permanent pastures, 26.78 percent from grazing not on farms, 7.21 percent from aftermath, and 3.03 percent from woodland.

From these and other estimates that could be cited, you can readily visualize our great dependence upon grasses and roughages. So far as the future is concerned, the primary problem is feed supply that we can expect to obtain from natural vegetation, pastures, and harvested roughages.

One noted authority in this field holds to the view that in the future our rangeland resources will become less important, both relatively and absolutely, nationally, in our production of grazing animals and that the cultural development of grasslands has much more to offer with respect to economic potentialities. Unfortunately, when we study subjects of this nature we soon realize the inadequacies of present systems of recording data. For example, Howard B. Sprague believes that no really adequate data are being gathered by the Census Bureau or other government agencies on production of forage on pastures.