Range Management Education

IV. The Educational Problem Common to Range Management and Animal Husbandry

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The important problem facing both Range Management and Animal Husbandry departments today is not merely one of improper construction of their respective curricula. The problem is of a deeper more nagging source, not so easily identifiable, until thought and responsibility force its admission. In brief, it consists of our ability to deal with students who according to their age are already "borderline" adults, and should be well on their way towards mature thinking. With alarming frequency, however, we find the opposite, for the social trend of our times is to extend the juvenile period of our young. Because of this fact, too great a number of our college-age students still hold steadfastly, indeed almost for dear life, on to the "cute" antics of early adolescense: the swaggering indifference that appears as disrespect or lack of concern, the intense preoccupation with "souped-up" jalopies and curvaceous "babes," and the fear of admitting even to themselves the sincere desire to learn for dread of being branded "different." In the final analysis, our common problem is to take incoming freshmen such as these, and by cutting the ties of juvenile protraction, guide the student to maturity and social awareness.

Our Objective and Its Importance

With each passing year the mature responsibility, which is this problem's final solution, is becoming more apparent and demanding. Our attention is riveted to this from all sides by thinking people whose growing concern is the condition of our natural resources.

The range management and animal husbandry men have been long aware of this fact, for the product with which they deal is the most valuable resource—our land. Of late, however, its mere exploitation has been fast forming into a matter of national concern. A solution in part is to teach our young their individual responsibility towards mature utilization and wise conservation of this natural resource. Our existence depends on this, for above all, our living is a result of the way efforts to use and conserve our resources are organized.

Realization of this fact is causing national attention, and is commanding the desire to instill consciousness within the tiller of the field and the custodian of the forest that they are the thrifty guardians of the soil. This sense of responsibility must be fostered, for man's future stands between immovable millstones. On one side, population pressures continue to increase tremendously. On the other side exist such facts as follows: The rivers fill with silt and top-soil blown from farms and range lands, the water table drops, the rains run off as floods, and with great frequency nicotinic neglect wipes away the protective root systems of our forests. Facts such as these force us to realize that in each phase of conservation—erosion control, watershed management, flood control, forestry and range management—whatever is lost now means pyramiding loss in the future. Credit philosophy must not be applied to our natural resources, for an attitude of "reap-the-benefits-now-and-pay-later" would be a stupendous blunder.

The importance of the utilization of our land resources, on the other hand, cannot be over-emphasized. Why, in the state of Colorado alone, the ranges—open and forested—annually feed some 2,000,000 cattle and 1,000,000 sheep. That's a tremendous number of roasts on the dinner table and wooden clothing for our people who rely on the products of our range land resource. For such, in reality, is this wide expanse of land producing feed which is palatable to nothing except range cattle, sheep, and wild game. Thus the wise utilization of this resource is vital to the life blood of the nation. Its conservation, for this very reason, must be the country's pulsating concern.

Directly responsible, however, are those concerned with immediate livelihood from these lands. The man who grazes cattle or sheep on the ranges cautiously must not overgraze given segments. Nature cannot replace range growth with the rapidity common to a rising market and the intriguing high price of cattle. Ideally speaking, in order to avoid possible
criminal neglect of the range, the animal husbandman must possess working knowledge of range management principles.

Working hand in hand with the animal husbandman must be the range management specialist. Although, in reality, he is a plant scientist, he in turn must possess sufficient knowledge of the working principles of cattle feeding. The full development of his interest requires this: the utilization and conservation of his life's work demands this.

Both men, thus, can fully derive individual livelihood from the ranges, with the self-esteem which follows the realization that, in their way, they are safely aiding the nation with acquisition of food, but never at the expense of the land. Knowledge by both men is needed concerning the numbers and manner in which cattle and sheep could graze safely on the range. Consideration must be given the type of range soil, the plant species that fare best, and the proper manner of utilizing the vegetation. With such thoughts constantly in mind and their realization in deed, the ranges so frequently subject to damage would be conserved.

**The Working Solution**

Concern over these matters is readily admitted, and the working solution is easily postulated. But how to make the solution a working reality...? In the final analysis, when all is said and done, prudent animal husbandry practices coupled with wise range management procedures lie in the success or failure of our teaching systems—whether taught by father to son, or friend to friend, or by the range management specialist to individual rancher, or in the classroom by teacher to student.

As in all phases of education, perhaps the most effective basic principles can be best instilled by teaching our people these principles while they are still children. Such a measure, however, would require revamping in our present method of progressive education; that method popularized in the past several decades and which has become so ingrained within the grade and high schools.

The teachers of the secondary school have the students at a time in life when character formation for the better or worse—is well on its way to being “set.” For this very reason, the challenge of teaching must be doubly dynamic and effective. Our students of animal husbandry must learn that basic practices of utilization geared towards conservation are in reality the identical interests of the range management student.

It is, therefore, evident that the teachers of these two fields have a problem which is basically similar. The difficulty, however, lies not only in the courses or prerequisites that are required of our students but in their own indecision. The problem is not easily solved. While we work for fundamental solutions, generalized divisions on many campuses capitalize on the under-graduate’s temporary indecision and focus the student's attention on superficiality. This new, generalized division on our campus, for example, is composed of many and varied departments and personalities; and its growth is much more rapid than the combined growth of the forestry and agricultural divisions.

Now this growth of general study with emphasis on no particular field may be caused by many reasons. Growing awareness by reputable men and organizations, however, points to the following main cause. It is becoming increasingly apparent that within the past twenty-five to thirty years, because of our relatively easy way of living, we have begun, as a majority, to think less and less about those basic and pulsating fundamentals of life. With our perspective askew, we have begun to place more importance on the superficial aspects of living. Plainly speaking, too many people have established the quest for a life of excessive leisure as their life objective. They are too concerned with their ability to catch a “fast buck” before the other fellow hurriedly grasps it, and with how “to win friends and influence people.” This is the period of time when many courses dealing with the foregoing objectives, rather carelessly described, have cropped-up like weeds on every campus of the country. This is a general educational problem in college teaching. Now let us turn our attention to the specific problems of animal husbandry and range management and see what solutions are possible.

**Basic Courses Needed**

We do require one course in the principles of range management for all our animal production students at Colorado A. and M. With each passing quarter, the student is urged enthusiastically to register in related courses for which he may have the prerequisites. Sadly enough, however, it is an extremely difficult task to point out the reasons for such matters in understandable fashion and to convince the student of their practicality.

As is so often the case in the conflict of desires dealing with apparent immediate gain, contrasted with applied principles of eventual constant returns, the former wins. For example, since the study of economics deals mainly with the theory of goods and services versus money, many students assume that its study will teach how to make money. Because its study deals with the fluctuations of material goods, it holds sway over many and is often the decisive factor in the choice of electives.

Mental competition is immediately established when the advisor suggests that applied range management principles coupled with wise feeding practices will be more beneficial and will eventually lead to the object of economic gain—oftentimes slowly, but with certainty! But do you know, it is difficult to get many students to see the reasons. First they must be convinced.
Yes, our advisors continuously urge precedence of such courses as range management and plant and soil sciences above economics and similar studies because the latter concern reactions that are inborn within each one of us. Even a child at his first game of marbles knows the law of supply and demand. The route is difficult, but gains are evident. Less economics is required now in our program than four years ago. Sadly enough, nonetheless, we still carry four courses of economics in our curriculum, as contrasted to one course in range management.

Perhaps the difficulty in stimulating desire, in transmitting understanding within our students, is based, in part, on the fact that we have somewhat different problems in the training of our animal husbandry students than do the teachers of the range management students. In reality, ours is not a professional curriculum. Animal husbandry students come in for training in many categories of the field. Some of them want to return to the farm or ranch, some of them wish to become county agents, some of them desire to go into the business of livestock marketing, some of them plan to enter the livestock processing end of the business. And in each of these divisions as all of us are aware, there are very, very many ramifications of the types of work. Only a few of our animal husbandry students wish to train for a professional life.

Interest Is Vital

When all is said and done, however, our basic problem is not rooted in the debatable issue of what secondary school courses to teach these students in their approaching adulthood. In our time, the problem is hidden more beneath the surface. In brief, it is this: How to instill intense interest in matters vital to our life at a time when it is simple to do so—in childhood. Every child in his first few years of living, regardless of from where he comes, is interested in taking objects apart in order to see of what they are made. Absorbing is his little mind to everything, and his key-words are simple and pointed: “How?” “what for?” “why.” His natural interest in plants is so great that he frequently uproots them. His inborn curiosity concerning animals is so probing that sometimes he hurts them. His occasional surts of understanding are so astounding that elders frequently are left wordless. But then what do we do with this dynamic little one whose mind hungers for the “whys” and “wherefores” of the world about?

Currently the trend in primary and secondary schools has been to divert this interest away from such channels of natural inquisitiveness. In other words, diverted from inherent intellectual pursuits.

It is no wonder, then, that when these young people come to college they wish too often to major in a division that requires fewer credits for graduation. And it is no wonder that so frequently they register for courses generally intended to make them “more personable. . . .” True enough, such generalized tendencies have debatable significance, but two facts remain. First, much too often such curricula are taken because they are considered “easier,” which, in itself, is poor reason for taking specific courses; and secondly, because such courses are diversions from basic intellectual pursuits. Rather than divert interest to the superficial, wouldn’t it be wonderful, if at the early age of the primary grades, we would allow the teacher to develop further those wise childish questions of “how” and “why.”

It would be beneficial if we fostered the growth of curiosity concerning nature, when it is childishly evident, and impressed the young with the wise and grateful use of natural life. Doing so, at an early age would eliminate the extreme difficulty of transmitting knowledge at the college level. The student would be conditioned for immediate work at that level. His learning “could be got on with” without first having to rekindle curiosity which is the stimulus of all intellectual development. As stated previously, the problem goes much deeper than mere college course requirements. In this respect, range management and animal husbandry are posed with the same difficulty.

Educational Deficiencies

Without mental reservation, wholehearted agreement is given to Dr. Tisdale’s words. Each of our college students should be given more basic courses. Each one needs more of the learning provided by the study of such subjects. Each one can stand more mathematics, more science—both plant and animal—more logic and language for idea creativeness and clear-cut expression.

As every day passes, this is “brought home” sharply to many organizations and individuals in various fields of endeavor. Too many years have passed since sufficient attention has been paid the “Three R’s. . . .” The proof of their shortage is screamed from many sides. In fact, the issue is gaining international proportions.

Just recently, Dr. Judge, Civilian research expert for the Air Force, pointed out that among the number of our young people entering that branch of military service there is an alarming number who are so deficient in basic education and moral character that the Air Force is seriously considering a special educational program to fulfill these deficiencies. Each one of us knows that such necessity is silent accusation of the failure of these young peoples’ education. Each one of us knows that such evidence indicates that something is very wrong. Our young probably are receiving too large a dose of something whose effects—whether we wish to admit it or not—are drastically questionable.

Furthermore, with each passing year we lapse further behind—as
much as 30,000 individuals in well-trained personnel to carry on our industrial and security research. Why, in agriculture alone, annually we are deficient 15,000 vital workers. In all probability, key positions that require skilled, technical training in fields basic to mankind could be re-vitalized if we could impart within the flexible and absorbing minds of children how wonderful, how interesting, how extremely important are such basic studies. If only we could teach again that which progressive education considers unimportant and irrelevant—because teachers consider a course difficult and are unqualified to teach it is not sufficient reason for discarding it! Never has the study of basic subjects made a student neurotic. Rather such study has lead to the progress of man.

Furthermore, it is my firm belief, that in this mad race that we today call education, we have given very little attention—certainly not the proper attention—to instructors in charge of certain courses, particularly those which are basic to every phase of learning. The qualified graduate in any field of endeavor is he whose mind has been stimulated and properly channeled by the qualified teacher. Many of us have had the sorry experience of learning to hate and fear a particular subject only because of its poor presentation. For this reason, sadly enough, basic subjects are the ones that stumble most frequently against mental blocks: Mathematics, science, language... We see evidence of the insufficiencies of our present educational system on every side. For example, in the past few years the situation in agriculture has evolved to such a pitiable degree, that, true to our nature, we have sought frantically to find scape-goats on whose shoulders, conscience-free, the blame could be placed. But we all know, however, that an important fact was completely overlooked: Both those causing and those suffering the current dilemma were the students of yesterday. Another was overlooked: That farmer who through poor management of the soil produced his own individual dustbowl, he too, was the student of yesteryear. That rancher who overgrazed rangeland because the current market price was good, followed economic graphs more than common sense and placed too many cattle on a specific segment of range land; and with his subsequent financial gain at market-time, shrugged his shoulders as he noticed the grassless and unprotected range land exposed to the elements, he too, was the student of yesteryear. Such instances don't have to be brought to our attention; everyone knows them.

The fact remains, however, that such individuals were the young of yesterday, the unwitting experimental students of an educational method that gained ascendancy in the Twenties and Thirties, and which still is too prevalent today. That system of teaching which fostered self-expression at any cost, de-emphasizing the “Three R's” because the supposed mental discipline would frustrate the child. With these teachings is implanted indirectly within the student the mistaken idea that this free expression, oftentimes at the cost of the majority, is Independence and Security. After due consideration, let us admit that teaching of this sort isn't best for us. Let us profit by our mistakes. Let us also appreciate that tomorrow's adults are our youth of today.

Our Teaching Goal

Regardless of all that is said, these youths hunger to learn, and amazingly enough, demonstrate tremendous aptitude, if given the chance. To distort this factor with questionable values is sinful. But youth is a time of biological upheaval and constant problems. The confusion of youth is sharpened by the mental competition of the worth of learning versus the gaining of “prestige” by the acquisition of immediate material goods. The quest for material goods, for their own sake—pure and simple—is still a poor substitute for the ultimate goal in life. Let us teach them that such things are the gravy of life, not the main course. Let us teach them a healthy respect for those basic possessions which money can never buy.

True, such teachings are difficult, especially if we ourselves have not learned them. Indeed, in defense of their own actions many would call these debatable issues. Overcoming difficulties, however, still is a matter for admiration. Let us teach our students the ability to differentiate between the superficialities (which when occasion demands can be eliminated) and the vital necessities of a truly rich and responsible life. Let us teach basic subjects first, and the “fluff” when time permits, and the difference between the two...

In so doing, we would produce not a “juvenile” adult, but a mature and capable student eager to assume responsibility. The student himself would understand and accept his eventual trusteeship of natural resources, those rightful heritages of the generation to come, which during his life-time will be his to use and conserve. As a working citizen, he would understand that government land as well as his own property suffers if operated only for gross profit and plunder. And above all, he would understand that concern over these matters is not merely of day-to-day conversational interest or material for temporary use in quadrennial political platforms. No one would have to convince him first to study these matters, for he would know that they are essential to life itself.