LAND MANAGEMENT TO MINIMIZE AND UTILIZE WASTE WATER

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A topic of this kind could necessitate many hours of discussion to define each phase whether it be land, management, minimize water, utilize water, and when the word waste is put in it further complicates the picture. It is my intention to discuss with you first, some of the basic principles affecting land management that is facing the industry of agriculture today. So, the first division of my remarks will deal with land management. The first essential as far as land management is concerned, is that I believe every individual in this room is of the belief that the Creator gave us land. Among the first of the points to be discussed today, to utilize the land transferring it to a form of living standard for human beings. There is considerable discussion on what is beneficial use of water, what is utilization of water, and how each of these is to be minimized. The first essential thing in land management, I think, is that it must be used for the benefit of the human race, it must be exploited and it must be maintained. Under our present farm economies where irrigation water is used on land for the production from that land isn't sufficient to make an economic return to the individual farming area in the first place could be wasted water. So, we as irrigated farmers, should isolate each enterprise and make a determination whether that particular enterprise or that commodity we are producing is correct water utilization or whether it is a waste of our natural resources.

The next division that I would like to make as far as this assignment is concerned is water. Water is the life line and the controlling factor. The economic life of the State of New Mexico and every individual unit, whether he be rancher, irrigated farmer or a businessman in some town; water is the controlling factor as far as the potentialities or possibilities of his particular business. It beholds all of us to make wise use of it. In addition, as far as land management is concerned, quite often we have seen water wasted in the process of achieving maximum production of crops. To minimize and utilize wasted water, first, let's determine what is waste. First, the production of crops that do not return an interest on the investment where it is used could be classed as waste. Second, and without a question of doubt, all water that is run down bar ditches and other places to cause growth of vegetation as a harbor for insects where this feed is not used, without a question of doubt, can be classed as waste. Third, as far as land management in the city limits, evaporative coolers, lawns, perennial vegetation and the way they are handled, the way they are watered, and the way they are used could be classed as wasted water. Fourth, one of the greatest wastes of water known in the State of New Mexico, due to our high evaporation is the lack of facilities to take care

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of water in transporting that water from it's source to the place where it is put to beneficial use. I would like to cite an example - Under our ACP program as far as the State of New Mexico is concerned, there is about $750,000 appropriated for the benefit of encouraging ACP payments to consist of land leveling, lining reservoirs, concrete pipes, and other things to conserve our natural resources. On the other hand the Soil Conservation Service in the State of New Mexico annually spends over a million dollars for personnel to render technical services through the Soil Conservation Districts and the Soil Conservation Supervisors. In addition, the New Mexico Extension Service, which devotes a portion of their time to study soil for natural resource conservation is approximately three-quarter million dollars. We have our agricultural experiment station which devotes a portion of their time on natural resouces conservation, their expenditure would be close to a half million dollars.

Without exception, I believe every farmer, irrigated farmer, and every rancher will invariably agree that water is the controlling factor of our economy and way of life and at the present time we are spending much more money for technical knowhow and experimentation than we are actually applying on what we already know. It seems that with more expenditure on search for technological methods to further conservation we should harness this leadership of technical knowhow also the leadership of the water conservationers for the purposes of securing money in sufficient quantities or re-investing state monies under conservation in conservation practices already known than in the continued expenditure of a new knowledge when we are not putting into effect those things that we already know are beneficial to protect our most important natural resource.

It is true we get lots of lip service and we hear lots of things about the availability of money for conservation practices, but at the present time both in the Mesilla Valley and in the Pecos Valley, during irrigating time I imagine you will find many, many open ditches and open canals in which gophers, vegetation growth, and everything else is using up the natural resource of water. The way that is being used since it isn't for the benefit of producing something that is good for people or using the water for the people who are dependent upon the land for a livlihood will be classed as a waste of water. The next phase of wasted water is application in the field. I have seen many instances where water was used and a lake would stay in the tail end of the field for three or four days which was completely beyond plant requirements, even to the point of killing some of the vegetation growth grown for beneficial purposes. There is a practice in California of putting in sump pumps collecting this water, pumping it back into concrete pipe lines and reusing the water which would assist in utilizing waste water.

Next in dealing with application of water. We all realize that the type of crop, water requirements of the crop, and the labor it takes to put water on land, the evaluation of all combined interests into the determination of how much good we get from usage of water. In our experience in the Pecos Valley we have found so far that we will get maximum utilization of water

by not getting absolute maximum yields and we are conducting our search for data to enable us to determine the amount of water to apply. Over application could be considered waste.

In summary, I have attempted to define this subject outlined to me, I have attempted to stress the importance of land management, how it fits together with the use of water to enhance and improve man's standard of living. I have attempted to issue a challenge to the leadership here stating that technology is ahead of financial resources to put into affect those things that we already know. I have attempted to point out that technology in application on the field is considerably ahead of the transportation of water from it's source of supply to the point where beneficial use is made. In conclusion, I am reminded of an incident whereby it was illustrated by a farmer in which he said, "When my outgo exceeds my income, my upkeep is my downfall". The further we continue following the type of economy dependent upon a cash crop, and a very small percentage of our land in that cash crop, the more difficulties our farming people are going to experience in maintaining their present income. It has proven consistently in our area the more commercial fertilizer we use without application of organic and humus matter the higher our water requirements are to make an economical yield.