

CRYSTAL LAKE SOIL CONSERVATION PROJECT

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My topic today deals with a soil conservation action program involving a group of farmers and the Extension Service of Saskatchewan Agriculture. My experience and observations over the years has been that while there has been a lot of talk about soil degradation, very little has been done at the grass-roots level to prevent it. We have all attended numerous conferences and workshops where soil conservation has been discussed and promoted by concerned individuals; but, unfortunately, their message to a large extent, has fallen on deaf ears.

The Crystal Lake story is one example of what could be done to create an awareness amongst farm people of the need to change their attitude about soil conservation. In creating this awareness and attitude change, it is hoped that soil degradation in one small area of Saskatchewan will one day be completely curtailed. It is the story of Extension working with people to help achieve one of the principle goals of Extension which is to help people help themselves.

Before I relate this story to you; however, I would like to express my own personal concerns about the tragic loss that we have suffered in this province through the indiscriminate use or perhaps misuse of our most precious natural resource.

We know that the soil is a living resource endowed with microbial organisms which together with the soil's physical and

chemical properties determine its production potential and erosion resisting ability. Left to nature it remains productive and responds to the needs of its eco-system. Man; however, changes the character of the soil through cultivation and crop production. It is within man's power to increase or decrease the productive capacity of the soil, and it is within his power to control soil depletion.

Many people firmly believe that the 'dirty thirties' will never again return to the prairies, but on the contrary, we have sufficient evidence to prove that such is not the case. We know that our soils are more prone to erosion than they were 50 years ago because of overtillage and organic matter depletion. We cannot ignore these facts nor can we mask them through the use of chemicals, fertilizers and specialized equipment. The time for conservation is now -- the task may be difficult, but certainly not insurmountable.

Having made these introductory statements perhaps it would now be appropriate for me to relate to you the story of the Crystal Lake Soil Conservation Project.

The project area is located about 10 miles north of Canora through which flows the Assiniboine River. The predominant soil type is Meota Fine Sandy Loam intermixed with some Shellbrook Fine Sandy Loam, Kamsack and Canora Silty Loams and pockets of Whitesand Gravel and Sandy Loam. It is an area through which I travelled numerous times in the course of my ag. rep. duties, and

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it is during these travels that I became concerned about what I saw. I could not help but notice the serious problems which farmers were facing and what little was being done to arrest soil erosion. This message was driven home to me time and time again as I witnessed the gradual destruction of the soil by the actions of wind and water. It became obvious that something should be done but the question was what to do?

Fortunately for me as an Extension worker, there were a number of other individuals in the area who were as concerned as I was about what was happening, and it was these people who were my initial contacts when the problem was first discussed. Through our informal discussions a plan of action was developed and presented to a number of farmers at one of our first meetings. The seed for a soil conservation program was planted at this meeting and slowly the idea began to take hold. Subsequent meetings were held and more discussions followed. Other agencies were invited to participate and indicate what resources they had to help the project get underway. At one of these informal meetings, the P.F.R.A. Tree Nursery representative suggested that they would be willing to provide staff, equipment and tree seedlings for the establishment of tree shelterbelts. This proposal generated a good deal of interest and was probably the catalyst which was required to get the project underway. In the spring of 1984, two years after our initial discussions took place some twenty miles of field shelterbelts were planted with the help and advice of the tree nursery staff.

By this time we had a lot of farmers showing an interest in the project, but there was still no formal organization to take over the administration of this program. It seemed that most farmers were happy to let the ag. rep. carry the ball, and it was not until the P.F.R.A. Soil Conservation Service offered financial assistance that it became necessary to form a legal organization.

In the spring of 1985 the Crystal Lake Soil Conservation Co-operative Ltd. became a reality consisting of a membership of some fifty farmers with an elected board of directors and project committees to administer and develop the action program with the help of the ag. rep., regional soils and crops specialist, P.F.R.A. Tree Nursery and Soil Conservationist and other resource people as required.

And now that we have an organization in place where do we go from here? To begin with, the tree shelterbelt planting program is continuing and an additional twenty-five miles of field shelterbelts were planted in the spring of 1985. This program will no doubt continue for as long as the demand is there. Along with the tree planting, a number of the members have gone into the planting of fall rye and winter wheat which has done surprisingly well on this light soil. Others are planning to seed forage crops and contract their fodder production to dairy and other livestock producers. No doubt strip cropping and snow trapping will become common, once the benefits of these cultural practices have been demonstrated. All of these soil conservation

practices and many others will be demonstrated and eventually adopted by the majority of farmers in the project area, but all this will take time. The Crystal Lake Soil Conservation Program was not started with the idea of doing everything in one or two years. It will probably take fifteen or twenty years before that area can be transformed from a wind-swept soil eroded eyesore to a productive greenbelt proving that even our poorest soils can be made productive given good husbandry and soil conservation practices.

While the project is now well established, that is not to say that there have not been problems. I would like at this time to point out a number of concerns that I have about events which took place when this project was being developed.

Because no one agency can provide all the expertise necessary to get the project underway, it is essential that all the agencies involved work harmoniously together for the benefit of those for whom we are providing this service. I have often said that farmers care less whether the service comes from Saskatchewan Agriculture, Canada Agriculture, P.F.R.A. or whatever the case may be so long as they get the information and assistance they seek. No one agency should attempt to take over a project and ignore the contribution others have made. Once this happens, the project then becomes an activity to enhance the image of one group or one or two individuals. We must not forget that our prime concern is not to enhance our own image or to exercise our authority,

but to collectively provide leadership and guidance to the farmers for the sole purpose of establishing a program of soil conservation.

Having said that, Mr. Chairman, I would now like to digress from my stated topic and deal with the broader aspects of soil conservation. Since I will be retiring in the near future, I would like to leave behind some of my personal biases on this very important and timely topic. While I have no axe to grind, my remarks will be frank and strightforward, but I want to assure this audience that they are sincere and stated in good faith. In any case, one of the advantages of retiring from the public service is that one can say what one feels like saying without fear of a moving van appearing at his front door the next week with orders to move!

It has been my privilege to work with farmers in the Canora area for the past thirty-five years. During that time I have seen many improvements but also I could not help but see the tragic results of the misuse of our land. We are told that our soils are still highly productive, but I ask you at what cost? It is true that we can still produce the bushels, but is it the farmers or the fertilizer companies or the chemical companies or the machinery companies who benefit most from this sustained production. Our economists are continuously telling us that bigger is better, and the more land you have the better off you are, but is this fact or fiction? I ask you a simple question--how can one operator do justice to a proper job of soil management and get the optimum production from his land when he is in

a hurry to hop, skip and jump over three or four thousand acres in order to get it seeded in time? How can he manage his soil if he does not take time to understand it, to nurture it, to preserve it and to conserve it? We can cite examples in other countries where the soil resources have been carefully managed, where soil fertility has been preserved and even increased. We have evidence of this in many of the European countries where the land has been farmed for countless generations. Surely we in Canada and Saskatchewan can work in harmony with nature to preserve and conserve our soils for the benefit of future generations.

As we study the history of agriculture in Saskatchewan and recognize the problem of soil degradation, we soon realize that we cannot break the laws of nature without eventually destroying our heritage of soil, water and forest. I have already cited examples of the tragic results of our short sighted exploitation of the land. The destruction of our most vital natural resource is increasing rapidly, but so far we have chosen to ignore this problem.

Fortunately we now have the knowledge and the ability gained from practical experience and science to conserve our soil. All we need now is the will to do it. We need to harden the determination of farmers to conserve and improve their heritage rather than exploit it. We need to abandon the piecemeal approach to soil conservation and institute a co-ordinated long term plan on the national and provincial level for the conservation of our soil.

I suggest that an immediate program of soil conservation is essential and highly desirable because as the famous American humorist, Will Rogers, once said, "there ain't anymore new land to be had -- they just don't make it anymore." With that in mind, we have to project our thoughts into the future and ask ourselves what the average yield of grain will be in Saskatchewan one hundred years from now if we continue with the present extractive system of farming? And while we're at it, we might as well ask another question on what will be the condition of our soils in a century's time if we do not curtail soil losses from wind and water erosion by conservation and soil building methods of farming?

If we consider ourselves to be the guardians of our heritage for future generations, we must take more positive measures now to protect this heritage. Federal and provincial governments should take immediate steps to set up permanent departments or branches of agriculture to deal with soil conservation. To some extent the federal government has already started a program of soil conservation through the P.F.R.A. Soil Conservation Service, but we in Saskatchewan are lagging far behind. We have done nothing to emphasize the need for soil conservation, and it certainly is not a priority item in our agricultural policies. We have one person at Regina designated as a soils specialist, but is this enough? I suggest that we need a high profile soil conservationist at the provincial level and at the six regional

levels as well. These specialists would deal specifically with soil conservation and initiate programs to preserve our soils for future generations.

But more than that, we need a messiah -- and by that I mean someone who is dedicated to the cause of soil conservation -- someone who could spread the gospel of soil conservation throughout the entire province. We need someone as dedicated to the cause of soil conservation as was Aaron Sapiro to the plight of Saskatchewan farmers in the 1920's when he came here to unite them in their struggle against the grain merchants and the grain cartels. To put it in a more modern context, we need a messiah of the calibre of Don Rennie who recently embarked on a crusade against excessive summerfallowing. Soil conservation may not be a controversial issue, but we need someone who can forcefully deliver the message that we cannot continue mining the soil and expect it to remain productive for years to come.

We are a relatively new country and our province has been farmed for less than one hundred years. We have made many mistakes and we have exploited our soils at an alarming rate. We can take warning from the mistakes of older civilizations who perished when their soil resources were depleted, and we can heed the lessons to be learned from soil management in those nations that have survived over the centuries. We have the advantages of modern science and technology to preserve our soils and put a stop to the destructive practices which are now going on.

In conclusion then, we must not be misled into believing that our soils are still relatively highly productive and that there is nothing to be concerned about. We must recognize the necessity of co-operating with nature. We must be conscious of the needs of the future generations who will follow us. We must stop being defiant when someone suggests that we should stop destroying our soil. We must establish a long range plan of soil conservation through our senior governments before it is too late.

This is the challenge that faces all of us and to meet this challenge we should remember that the fundamental principle of soil conservation is that man must tend to his forests and cultivate his fields in balance with nature or he will destroy his heritage and perish.