Conservation pays! We have heard that comment more and more in recent months. Those of us who are concerned about soil conservation can readily accept that it is an important practice. And we can agree that in the long run good soil management does pay. But soil conservation also costs. I recently read an editorial in which the editor was condemning Saskatchewan farmers for their intention to increase summerfallow acres in 1988. The writer went on to point out that with proper use of fertilizers, chemical weed control, legume crops and no tillage, farmers could begin to build up lost organic matter and prevent soil erosion. Such advice is certainly noble enough but fails to address some of the other factors that influence a farmer’s decision regarding conservation practices.

Economics is a major factor to be considered. Most farmers I know are very concerned about their soil. They are prepared to adapt new practices to suit their own enterprise, but if it isn’t economical then they are not likely to be enthused. This is particularly true in times of low economic returns. Those farmers who are facing short-term difficulties are not able to integrate practices which will have a positive effect in the long term. In these cases, conservation costs!

Another factor which must be considered is moisture. There is a general concern this spring that a major drought could occur. I often think of my father’s words, “No rain, no grain, no gain.” While we would like to believe that modern agronomic practices can compensate for lack of moisture, we still need Mother Nature’s help.

A third factor influencing farmers’ decisions relating to conservation is the effect of government policies. I think primarily of quota systems, stabilization payments, set-aside programs, etc., etc. And of course these are not just Canadian but global policies as well. They do, however, have a direct effect on each farmer.

Thus, before writers condemn farmers for their lack of concern relating to soil conservation, it would be wise to consider the farmers’ plight. Such oversimplification as presented in the editorial that I read does very little to promote good soil conservation. Unfortunately, many urban people read such editorials and accept the message as fact. Perhaps we should do some research into the effects of a cheap food policy on soil conservation.

Members of SSCA are invited to submit articles for publication in our newsletter to Glen Hass, Rm 110 Kirk Hall, Division of Extension and Community Relations, University of Saskatchewan S7N 0W0.
A SYSTEMS APPROACH TO SOIL CONSERVATION

The Saskatchewan Soil Conservation Association held its first annual conference and annual meeting in Saskatoon on February 16 and 17, 1988. The theme, "A Systems Approach to Soil Conservation," described the various presentations from farmers and researchers. Over 150 participants heard farmers Les Potter from Gull Lake and Claude Carles from Radville stress the importance of keeping good records to help make decisions about any farm enterprise. Jim Halford from Indian Head explained how selective herbicides can be used for weed control. He stressed the importance of correct rates and timely applications. Ken Allport from Agricultural District #40 Save Our Soils Project and Dale Fyke from the District #11 Save Our Soils Project emphasized the need for a systems approach to maintain trash cover on summerfallow to prevent erosion.

Two researchers — Dr. E. de Jong from the University of Saskatchewan and Dr. Guy Lafond from Agriculture Canada at Indian Head — spoke on the importance of considering all farm operations. They emphasized the importance of a variable cropping system to allow for flexibility depending upon conditions such as moisture, crop prices and available markets.

Keynote speaker Lorne Hehn, Vice President of Conservation Canada, spoke to the delegates. He emphasized the importance of involving all groups in promoting soil conservation. Mr. Hehn told the delegates that producers and consumers alike must be made aware of the importance of conservation and the prevention of further soil degradation.

Luncheon speaker Dr Harry Hill, Director General of P F R A, who is on leave to head up the new Conservation Program of Agriculture Canada, outlined new initiatives that are being introduced to promote soil conservation. Dr. Hill indicated that there would be funds available on a cost-sharing basis with provinces. These funds will be available for special conservation projects.

President Brett Meinert of Shaunavon spoke to the delegates at the annual meeting. He reported that the SSCA was formed to provide a provincial organization dedicated to encourage soil conservation by promoting crop production systems which reduce soil degradation and maintain economic viability. Association manager Glen Hass from the University of Saskatchewan presented the constitution to the delegates.

The Association has over 150 full farmer members, 30 associate members and 12 supporting members. SSCA has six regions and will hold its first elections in the fall of 1988. Elections will be held for six regional directors and a president elect. These positions will be filled by full members in the Association. Anyone interested in helping promote soil conservation should become a member of SSCA. The membership fee is $30.00 annually. For more information contact Glen Hass, Room 110 Kirk Hall, University of Saskatchewan S7N 0W0, telephone 966-5550.

Election of New Board of Directors

At the annual meeting of SSCA, a motion was passed to have the interim Board of Directors continue until December 31, 1988. This would allow elections to be held as outlined in the constitution. This will require elections in all of the six regions. Three will be for a two-year term and three for a one-year term. As well there will be
elections held for a new president and for a president-elect. All of these are to be selected from the full members of SSCA. More detail will be provided in the next newsletter but if you are interested in being a director or president or if you know someone who is, their names can be forwarded to Glen Hass, the Manager of SSCA, at any time. Present board members are eligible for re-election but a new president must be selected for 1989.

The Saskatchewan Soil Conservation Association is a new organization that has an important role to play in advising and guiding those responsible for soil conservation in Saskatchewan.

**SASKATCHEWAN SOIL CONSERVATION BOARD OF DIRECTORS**

Brett Meinert, President, Box 1438, Shaunavon S0N 2M0

Ron Alton, Director North East, Box 609, Carrot River S0E 0L0

Terry Switenky, Director North East, R.R.#2, Site 6, Box 370, Prince Albert S6V 5P9

Ken Duke, Director South East, General Delivery, Langbank S0G 2X0

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Joe Holenski, Director South West, Box 304, Vanguard S0N 2V0

Ken Allport, Director West Central, Box 518, Kyle S0L 1T0

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Fred Phillips, Director East Central, Box 1287, Yorkton S3N 2X3

**Land Stewardship Program**

The Ontario Ministry of Agriculture and Food (OMAF) has instigated a three-year, $40 million program to provide financial incentives for first-time adoption of conservation farming practices. This program was set in place as a response to widespread concern throughout the province relating to serious water and wind erosion.

The program is funded by OMAF and is available to individuals who are bona fide farmers, to corporations which have major interests in agriculture and to small land owners.

The Land Stewardship Incentive Program consists of four sections:

A. **Soil Structure — Improvement and Maintenance**

This section focuses on crop rotations, residue and crop cover, trees and stewardship lease. This latter category provides incentives to landlords to require tenants to farm their land in a conservation way.

B. **Erosion Control Structures**

This part of the program provides funding for municipal and local county projects which affect water drainage.

C. **Conservation Equipment**

This section provides funding to encourage the use, modification and adoption of equipment which will improve residual management.

D. **Conservation Technology**

This is to support the development of training courses relating to conservation practices, equipment design and utilization, and upgrading both farmers and technicians.

This program is a major commitment by OMAF to encourage soil conservation. SSCA may be well advised to learn more about this program to determine if a similar program might be integrated into Saskatchewan’s conservation programs.
SOIL CONSERVATION IN SASKATCHEWAN
L.R. Gramiak, Soils and Crops Specialist, Extension Service, Saskatchewan Agriculture

Soils together with water constitute the most precious resources we have. The land and its soil stand at the base of the pyramid of life. Despite the relative importance of soil, this resource is degrading at an alarming rate. Evidence from recent studies indicates that the total on-farm costs of land degradation in Canada are between $750 million and $1.2 billion annually.

The major causes of land degradation in Saskatchewan are erosion by wind and water, soil salinity and organic matter loss.

Soil erosion results from the action of wind and water on an inadequately protected soil surface. The loss of one inch of topsoil can reduce yields by three to four bushels per acre. This is a permanent loss which will occur year after year. In addition to lost productivity, erosion causes crop injury by sandblasting young seedlings. Other costs associated with erosion include the use of heavy equipment in the removal of eroded soil from ditches.

Soil salinity is another form of land degradation. Estimates of the total amount of saline land in Saskatchewan vary widely, but all agree that at least several million acres are affected to some extent. Dryland salinity is a complex problem. Soil salinity is more a water problem than a soil problem. It is caused by high water tables. Dissolved salts move with the water into plant rooting zones and deprive plants of water. The salts actually prevent water and dissolved nutrients from entering the plant. Salts are then deposited on the surface as the water evaporates.

If the problem is complex, the solution is even more so. There are no magical cures for soil salinity. Water management is the key to controlling salinity. For many farmers complete reclama-
tion of saline soil may not be possible. The best option, in many cases, may be to plant forages. Even if the forage is not harvested, it may at least allow travel over the area and reduce the unnecessary expenses of fuel, fertilizer and seed that are wasted in the hope of growing annual crops in these areas.

The most subtle form of soil degradation is organic matter loss. Early farmers recognized that soils with a high organic matter content produced good crops, the reason being that organic matter is a source of plant nutrients, improves soil structure, increases moisture infiltration capability and increases the water-holding capacity of soils.

Half of the original organic matter of our soils has been lost by summerfallowing and annual cropping. The result is lower productivity, reduced soil tilth and an increased dependency on commercial fertilizer.

Summerfallow and excessive tillage have been blamed for much of the soil degradation. Soil erosion can be reduced by decreasing the amount and the frequency of both summerfallow and tillage. These practices leave little, if any, crop residue on the soil surface, causing the soil to dry out faster and to be more susceptible to erosion. Erosion potential can be reduced by reducing the number of operations, selecting proper equipment and reducing operating speed and depth.

Summerfallow and intensive tillage accelerate the decomposition of organic matter. Part of the solution to organic matter loss lies in reduced summerfallow acres, reduced tillage and efficient fertilizer use.

Farmers in Saskatchewan are conservation-minded and have, for many years, utilized soil conservation practices such as shelterbelts, grassed waterways, strip cropping, legume plowdown and forages in rotation. More recently, practices such as reduced tillage, chemfallow, snow trapping, annual legumes and direct seeding have been adopted to reduce soil degradation.