

THE SASKATCHEWAN ADVISORY COUNCIL ON SOILS AND LAND USE

Report to the 1977 Workshop

D.A. Rennie

The eighteen members of council represent a wide spectrum of agencies and expertise in the general area of soils, crop production and land use. New appointees to council during the year under report include Roy Ardell and Dr. Casey Van Teeling, who replaced Frank Bond and Jack Braidek as representatives of the Western Canada Fertilizer Association. Mark Kilcher, a long standing member of council from the Agriculture Canada Research Station, Swift Current, has been replaced with Dr. A.J. Leyshon. The Council acknowledges with very real gratitude and appreciation the significant contributions that the three retiring council members have made.

Present council membership is outlined below:

The Executive of Council: D.A. Rennie
W.E. Johnson
H.M. Austenson (Agronomy Committee)
J.W. Hamm (Fertility Committee)
J.L. Henry (Land Use Committee)
A.J. Leyshon (Forage Committee)

Council Members: D.W.L. Read
W.F. Nuttall
T.S. Phenix
H. Ukrainetz
K. Foster
G.W. Wilson
L. Weixl
R.E. Melvin
D. Dabbs
R.N. McIver
R.G. Ardell
C. Van Teeling

Two meetings of council were held during the past year. Certain of the four standing committees met more frequently. The following comments are intended to summarize in capsule form the highlights of the past year's activity of the council and its standing committees.

1. Saline Soils - An Extension publication prepared by Les Henry is undergoing final editorial review and should be available for distribution in the late spring.

There appears to be serious misunderstanding by the public and agents or distributors of elemental sulfur about the role of this product in the

reclamation of saline soils. A major distributor of elemental sulfur has been advised that this product is not recommended for saline soil reclamation, and in fact if applied would probably result in further reductions in crop yields.

2. Broadcast applications of phosphate fertilizers are only recommended on serious eroded soils such as shallow knolls - at a minimum rate of 150 lbs of P_2O_5 per acre. Anyone interested in broadcasting P fertilizers should be advised that in general cereal grain yield increases from a 150 lb P_2O_5 broadcast application in year I are comparable to a 15 lb P_2O_5 seed placed application; responses to the broadcast applications will however continue in succeeding years.

3. Nitrogen - Special committees of council will shortly be reporting on fall versus spring soil test values and the comparative performance of nitrogen sources, and effect of time of application.

4. Metric Conversions - Council has approved conversion of soil test recommendations in 1977-78 and has recommended to the appropriate agencies that the fertilizer industry switch to elemental labelling at the same time.

5. A year ago I reported briefly on research priorities. Discussions on this highly important matter have continued within Council, with the Land Resource Ecologics Research Group of the College of Agriculture (Kerry Foster now represents the Council on that group), with the Western Canada Soil Co-ordinating Committee (met February 7 in Saskatoon), with the Canada Soil Fertility Committee (Earl Johnson has represented us on that committee) and with SASCC.

6. Council brought a number of items of concern to the December meeting of SASCC. These included:

(a) A recommendation that immediate steps be taken to ensure that the Canada Land Inventory is utilized to its fullest potential in solving land use problems in Saskatchewan.

SASCC forwarded this recommendation to CASCC.

(b) A recommendation that immediate steps be taken to ensure that information on the physical environment within a 30 mile radius of major population centers in Saskatchewan be made available.

SASCC will be forwarding this recommendation to appropriate government departments in the province.

(c) A recommendation that the highest priority be placed on research and development to improve materials and methods for fall herbicide and fertilizer N application to reduce the severity of soil manipulation and crop residue reduction now required. Such development is vital to the successful adoption of extended cropping systems.

SASCC has responded to this recommendation by asking that a task force be formed with representation from soils, crops, agronomy and weed control groups, and that a report on this item be made to the 1977 SASCC Workshop meeting.

(d) A recommendation that post emergent herbicides, particularly those requiring later application for efficacy be studied in relation to their effect on competition by weeds for plant nutrients and moisture.

SASCC has referred this item to the Crop Production and Research Co-ordinating Group, College of Agriculture.

(e) A recommendation that SASCC make strong representation to Agriculture Canada and the fertilizer trade to have fertilizer guarantees listed on the elemental basis at the time the metric system is introduced has been forwarded to CASCC for consideration.

7. Publications - During the year under report the following publications were prepared:

1977 Saskatchewan and Cropping Practices Bulletin.

1976 Workshop Proceedings.

A news release in December relating to such items as:

- the critical erosion hazard on fallow land, and large blocks of stubble land that were extensively tilled in the fall of 1976;
- the present severe soil treatment required for fall herbicide incorporation;
- the muted but not justified claim that anhydrous ammonia damages soils;
- the so-called miracle chemicals and exotic soil amendments;
- the very real benefits of optimizing plant nutrients through soil test recommendations particularly on a dry year.