

REPORT ON SASKATCHEWAN SOIL TESTING LABORATORY  
ACTIVITIES IN 1974

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Sample submissions from farm fields increased again in 1973. The laboratory processed samples from 4,200 fields to January 31st as compared to 2,500 for the previous year. Thus, an increasing use trend is apparent reflecting the current buoyancy of the agricultural economy. It is felt that even greater use would be made of soil diagnostic services if fertilizer supplies were not a limiting factor at the present time. Fertilizer users are being forced to buy early without available nutrient information. This approach is causing difficulties, particularly, with respect to nitrogen fertilization. The longevity of the fertilizer supply problem is, therefore, of concern to the laboratory. The relative sampling activities of fertilizer distribution in Saskatchewan is shown in Table 1.

Nitrogen Situation - Regional Basis

One major conclusion was drawn from regional summaries of nitrogen levels. Summerfallow fields in the Gray soil zone are abnormally low this year. The data indicate that 42% of the fields tested require additional nitrogen. This is contrasted to 17% in 1972-73 and 15% in 1971-72.

Potassium Recommendations

The recent revisions of the potassium requirement guidelines for barley and the consequent increase in frequency of K recommendations for this crop is of interest. Fertilizer potassium is now being recommended on some coarse to medium textured soils in the Dark Brown and Thin Black soil zones.

Since K response studies have not been carried out in these regions, the validity of the recommendations should be examined. Agronomists should encourage farmers to leave check strips.

#### Sulphur Fertilization

A "sulphur-only" fertilizer for situations where S is the only element required is still not available in Western Canada. The Western Canadian Fertilizer Association has been contacted in this regard. The limited demand for such a product will likely continue to delay its production and manufacture.

#### Effect of Current Costs and Prices on Recommendations

The current grain price and fertilizer cost situation in the province is considerably different from that used in formulating recommendations by the Laboratory. Thus, our recommendations for nitrogen in particular, are conservative. Farmers should be encouraged to adjust our rates in view of this net effect.

#### Sampling Quality in the Field

A recent summary of the number of sites sampled per field indicated approximately 50% of the sampling in the fall of 1973 was inadequate. In actual fact, 51% of the fields were sampled in less than 10 sites and 15% of the fields were sampled in less than 6 sites. It is, obvious, that soil sampling quality should be improved.

TABLE 1 Summary of Sample Submission by Major Fertilizer Distributors  
in Saskatchewan in the fall of 1973.\*

Distributor	% of Total	
Saskatchewan Wheat Pool	25.5	(41.1)**
Soil Testing Laboratory	21.0	( 5.7)
Imperial Oil Limited	19.1	(19.5)
Federated Co-operative	9.2	( 8.3)
Cominco Limited	8.9	(10.1)
United Grain Growers	7.5	( 4.4)
Sherritt Gordon Mines	6.2	( 0.9)
National Grain	1.8	( 3.2)

\* To Jan. 23, 1974

\*\* 1967-68 Percentages