Summary of Recent Results Compiled in 1972

W. F. Nuttall, Melfort Research Station

CEREALS (A) Melfort 1972

Yield of Betzes barley on stubble was increased by 116 lb/acre with 20 lb of S applied as gypsum (Table 1) with 11-48-0. A similar yield increase was obtained with ammonium sulphate and with additional ammonium nitrate added to bring the rate to 40 lb of N/acre. The high rate of nitrogen (120 lb/acre) depressed yield without the addition of sulphur (3114 vs. 2883 lb/acre), but by adding 20 lb of S the maximum yield of 3343 lb/acre was obtained. The 30 and 40 lb rates of S produced only slight yield increases at high rates of nitrogen (90 and 120 N/acre) and resulted in yield depression with lower N rates.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>P</th>
<th>S</th>
<th>Grain lb/acre</th>
<th>Straw lb/acre</th>
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<td>lb/acre</td>
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Yields of Alfalfa and Bromegrass Pasture

as Affected by NP Fertilizers

FORAGES (B) Melfort 1972 (1971 data)

Yield response to NP fertilizers was significant on pasture which
was in the fifth year of grazing (Table 1). Forage yields on pasture
with animals fed supplementary barley (1200 lb/steer) were higher
(3472 vs. 2666 kg/ha average of 3 ranges) than on pasture where no
supplement was fed. Yield response to phosphate fertilizer was less
on pasture with supplementary barley fed (224 vs. 448 kg/ha). Soil
tests for P were higher on pastures with supplementary pasture (6.8
vs. 4.4 μg P/g soil) and this would account largely for the lower
phosphate fertilizer yield response.

Average yield was 2890 kg/ha and 3203 kg/ha with 0 and 20
kg P/ha applied, respectively.
Yields of Alfalfa and Bromegrass Pasture Affected by NP Fertilizer

<table>
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<th>Pasture Management (A)</th>
<th>P* (C) kg/ha</th>
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* Subunit effect of phosphorus was significant at 5% probability level.
** Subunit effect of nitrogen was significant at 1% probability level.
+ 1 lb/ac = kg/ha x .9.