PASTURE TOP-DRESSING WITH FERTILIZER AND LIME
IN THE HAY AND PASTURE BELT\textsuperscript{1}

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During the season of 1929, a group of agronomists associated with the fertilizer industry cooperated in conducting 103 replications of a uniform pasture top-dressing test in 15 northeastern states and in the Province of Ontario. This paper is a progress report and summary of the first season's results.

The plat arrangement and treatment of the standard test was as follows:

Check, untreated

Phosphoric acid only,* 1,000 pounds per acre o-10-o

Phosphoric acid and lime, 1,000 pounds per acre o-10-o and lime

Phosphoric acid, potash, and lime, 1,000 pounds per acre o-10-10 and lime

Complete fertilizer and lime, 1,000 pounds per acre 5-10-10 and lime

*625 pounds 16\% superphosphate actually used.

†The figures refer to percentages of nitrogen, phosphoric acid, and potash, respectively. The nitrogen was derived from either ammonium sulfate, calurea, cyanamid, nitrate of soda, or any mixture of them. The phosphoric acid was derived from superphosphate, usually 16\%. The potash was derived from muriate of potash. The lime used was either 2,000 pounds per acre of hydrate or 3,000 pounds per acre of carbonate.

Each plat was 2 by 8 rods in size, making \(\frac{1}{10}\) acre. Cattle were fenced out of one end of each plat from the start so that growth response could be observed and determined by mechanical harvesting and chemical analysis. Field men were given the following suggestions relative to handling these tests:

"Locate plats on pasture land which is reasonably free from brush, reasonably well supplied with moisture, and not exhausted to the point where the desirable species of pasture plants have completely disappeared.

"In general, select land which once grew good pasturage and avoid like a pestilence land which never did. Avoid especially land which existing vegetation marks as excessively droughty.

"Apply all treatments except nitrogen in the fall or as early as possible in the spring. Apply nitrogen about a month before 'turning out time.'”

The average result, together with estimated cost and comparative cost of dry matter and crude protein in three of the commoner manger

\textsuperscript{1}Paper read at the annual meeting of the Society held in Chicago, Ill., November 15, 1929. Received for publication April 21, 1930.

\textsuperscript{2}National Fertilizer Association, Bellows Falls, Vt.