METHOD OF FERTILIZER APPLICATION FOR CANNING PEAS

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The importance of securing maximum benefits from the use of fertilizers has been given much attention by agronomists in recent years. It is generally admitted that a much larger return in fertilizer investment may be secured by proper placement. In the case of corn and other cultivated crops, placing fertilizers in bands on both sides of the row or hill has been found more profitable in practically every trial reported. This practice is now well nigh universal. In the case of small grains drilling fertilizer down the same spout with the seed has also proved superior to broadcasting. Little or no injury has been reported even with moderately heavy applications.

In the case of peas there is some danger of germination injury due to fertilizers. Particularly is this noted when the crop is grown on drouthy soil, or even on heavy soils with a low moisture level at planting time. Phosphates are generally harmless. Potash in moderate rates may also be used safely. Inorganic nitrogen, however, is likely to cause trouble, particularly on soils of low water-holding capacity or on any soil deficient in moisture during the germination stage.

At the Marshfield, Wis., Station the placement of fertilizer for peas has been studied for 3 years. The soil on which canning peas was grown is mapped as Colby silt loam. The surface 8 inches are a grayish silt loam underlain by a retentive subsoil. It has an excellent water-holding capacity.

THE 1930 RESULTS

Alaska peas were planted May 1, 1930, at the rate of 4½ bushels per acre. The soil contained a normal supply of moisture, averaging approximately 30% computed on the dry basis. On one section fertilizer was drilled with the seed at two different rates, viz., 300 and 500 pounds. On another section fertilizer at these rates was applied directly above the seed separated by 1½ to 2 inches of soil by means of special surface distributors consisting of tubes fastened to the disks of the drill and connecting with the fertilizer hopper. In Table 1 is indicated the effect on yield and on siftings.

The 300-pound application above the seed gave 1,618 pounds of peas per acre, while with the same amount of fertilizers drilled with the seed the yield was increased 146.5 pounds. The 500-pound application above the seed produced 1,838 pounds which in turn was increased 210.5 pounds by applying fertilizer with the seed.

The crop was vined July 7, 68 days after planting, at a stage when the peas were in excellent condition for processing as evidenced by the

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