The Effect of Cultural Practices on Emergence and Uniformity of Stand of Sugar Beets

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Improvement of the rapidity, percentage and uniformity of sugar beet seedling emergence in the field is at present one of the most important needs in sugar beet production. The grower is well aware of a great deal more variation in rate and percentage emergence of sugar beets than of beans, corn, or small grains. In addition to the positive effect on beet yields, the improvement of seedling emergence in the field is necessary before complete spring mechanization can be accomplished.

Review of Literature

Much work has been done on the relationship of tillage practices to seedling emergence and crop yields. Results of these experiments vary as to which method is considered best (5, 7, 12). Depth of planting was found by Hentschel to have a greater effect upon emergence than did the method of fitting the seedbed and planting the seed. Barmington (1) found that highest emergence of beet seedlings was obtained when soil moisture and soil firmness were highest, and lowest when these factors were lowest. Cook (2, 3) reported that good stands and yields were obtained on plots where the soil had been fitted in one operation, and at all times through the season the crop looked best on those plots where the seed had been planted most


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