EFFECT OF SIZE OF SEED SET ON YIELD AND ON CERTAIN OTHER CHARACTERS IN POTATOES¹

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Occasionally there is considerable interest in the question of the proper size of seed set to use in potato production. Many of the experiments that have been conducted are inconclusive. Some have drawn conclusions from experiments without a consideration of the amount of seed planted in each case. Still others have drawn conclusions without a consideration of the relationship that exists between differences in yield and their respective probable errors. Some differences in yield herein reported at first appeared significant, but seem less so after the seed planted is subtracted and the differences compared with their probable errors. In a case or two, however, odds were high enough to appear significant.

REVIEW OF LITERATURE

Stuart, et al (12)³ have given a rather complete review of the literature on size of seed piece in potatoes up to 1922. In view of this, only a few of the earlier and the more recent publications will be considered here. The conclusions reached by Stuart and his collaborators from a study of the literature up to 1922, are as follows:

“A critical study of the literature on the subject leaves the impression that much of the data presented is inconclusive. It also serves to convince the reader that much depends upon the manner in which the experiment was planned and executed whether whole or cut sets gave the most profitable yield.

“The successful determination of the most profitable size of set to use and whether it should be planted whole or cut, primarily involves a careful study of the proper spacing to give to each size of set in order to obtain the maximum yield.”

In this same publication Stuart and his colleagues have reported their results of several years of experimental work. The experiments were carried on at Norfolk, Virginia, at Caribou and Presque Isle, Maine, at Greeley, Colorado, and at Jerome, Idaho. The varieties used were Irish Cobbler at the Virginia Station, Irish Cobbler and Green Mountain at the Maine Station, Rural New Yorker No. 2 at the Colorado Station, and Charles Downing (Idaho Rural) and Russet Burbank (Netted Gem) at the Idaho Station.

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³Reference by number is to “Literature Cited,” p. 720.