

emerged plants was taken at 10-day intervals from the time of emergence until July 2. Blackleg counts were also taken at 10-day intervals until August 29. The data in the table indicate the acid-mercury treatment reduced the number of plants emerging considerably more than any other treatment. This treatment was the most effective in reducing blackleg infection followed by the two Agri-mycin 100 dips. The Agri-mycin 100 dust ranked tenth among the 11 treatments. With the exception of Wescodyne, the remaining treatments reduced blackleg infection but the reduction was not sufficient to warrant the use of any of the materials for seed treatment where blackleg is a problem.

Although the incidence of blackleg was the principal objective of the experiment, the yields were included in the data to determine what effect the treatments had upon them. Results indicate emergence and yield were more closely correlated than blackleg and yield.

TABLE I.—**Sebago Seed Piece Treatments and Their Effect on Emergence, Blackleg and Yield.**

Treatment	Date seed cut and treated	Emergence ¹	Blackleg ²	Bushels per acre
Acid-mercury dip, 1¼ gal. per 100 gal. ...	5/10	145	10	94
Untreated	4/26	194	44	106
Agri-mycin 100 dip, 200 ppm ²	4/26	192	16	116
Orthocide dust, 5% active	4/26	192	37	108
Agri-mycin 100 dip, 200 ppm	5/10	190	17	104
Agri-mycin 100 dust, 200 ppm	4/26	188	48	86
Orthocide dip, 2 lb. per 100 gal.	5/10	194	29	108
B-104 dip, 1:250 ³	5/10	182	30	85
Wescodyne dip, 3 oz. per 15 gal.	5/10	191	49	104
Agri-mycin 100, 200 ppm-Parzate, 5% active, dust	4/26	198	38	119
Untreated	5/10	191	45	88

¹From 200 seed pieces.

²Parts per million.

³Dimethyl di-dodecenyil ammonium chloride.

Summary

The treatment of cut Sebago seed pieces with acid-mercury dip reduced blackleg infection more than any other treatment but it was injurious to the seed. Agri-mycin 100 dip did not injure the seed and it was the second most effective treatment.

Expanded fundamental research—on enzymes, chemical constituents, storage and handling conditions, and other factors influencing potato quality from field to finished consumer product—is needed to aid growers and processors to extend market outlets for this crop, says the U.S. Department of Agriculture's Potato Research and Marketing Advisory Committee. Meeting in Washington recently the committee urged also that the U.S. Department of Agriculture undertake additional work (1) on evaluation of new sources of germ plasm for potato breeding and on development of new disease-resistant and insect-resistant varieties, (2) on improved processing of present potato products, and development of new, easy-to-use consumer food items from potatoes, and (3) on methods and facilities to reduce costs and maintain quality during market distribution of the crop.