

## SEED TREATMENT FOR SEEDLING DISEASE CONTROL

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The search for better fungicides as treatments on acid-delinted seed has been conducted over the years as a cooperative study with pathologists in West Texas and California. Uniform testing at four or more locations has provided valuable information on the performance of the fungicides under varying soil and environmental conditions. Consequently, the results of such a program may be viewed with a greater degree of confidence. With the virtual disappearance of the mercury-containing fungicides we have been able to provide the seed processors with information on other fungicides of proven value.

For the third successive year we have conducted tests with a number of lots of western-grown seed, using samples taken before and after treatment with a given fungicide combination. The planting at Phoenix was made April 3, and the cool weather of April, 1970, resulted in delayed emergence and slow development of the seedling plants. The incidence of collapsed seedlings at several periods after planting is summarized below:

At 3 weeks, 112 collapsed seedlings or 19.4% of total disease.								
4	"	51	"	"	"	8.9%	"	"
5	"	135	"	"	"	23.4%	"	"
6	"	240	"	"	"	41.7%	"	"
7	"	38	"	"	"	6.7%	"	"

Our 3.21% loss of emerged seedlings in this test indicates that only a minor amount of seedling loss occurred, even though air temperatures were below average. Analysis of the final stands at seven weeks disclosed highly significant differences between the eight sources of seed and for the effect of the fungicide treatment.