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SURVIVAL OF SCLEROTIA OF SCLEROTINIA SCLEROTIORUM
IN WESTERN NEBRASKA

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Sclerotia of the white mold fungus Sclerotinia sclerotiorum have been found in dry bean fields in western Nebraska. Since these sclerotia may be the primary overwintering mechanism of the fungus, survival studies were begun in October, 1971. Soil was mixed with 100 sclerotia in each of the nylon mesh sacks to minimize sclerotial contact. The sacks were placed at various depths below the soil surface of a bean field at the Scotts Bluff Experiment Station. The first sclerotia were collected in May, 1972, and placed on 2% water agar.

Most of the original sclerotia were recovered at all depths in a viable condition (Table 1). The highest percentage of sclerotia forming apothecial initials during the 7 month period were those placed at the 2 in. depth (Table 1). At this depth, sclerotia can form apothecia at the soil surface and release ascospores. Sclerotia placed 2-12 in. below the soil surface develop the capacity to form apothecia (Table 1). Because material at these depths may be brought near the soil surface by plowing, buried sclerotia have the potential to produce the ascospores which infect dry beans in western Nebraska.

Table 1. Percentages of sclerotia recovered, with apothecial initials and forming apothecia on water agar. Collected after 7 months in soil at Scottsbluff.

Depth buried (inches)	Percent Sclerotia		
	Recovered	With apothecial initials	Forming apothecia on water agar
0	95	3	2
2	92	58	71
4	96	17	73
8	88	0	83
12	82	<1	83
