OSU Plant Clinic
Department of Botany & Plant Pathology

Oregon State University Extension Service

Skin Blotch and Bulb Canker

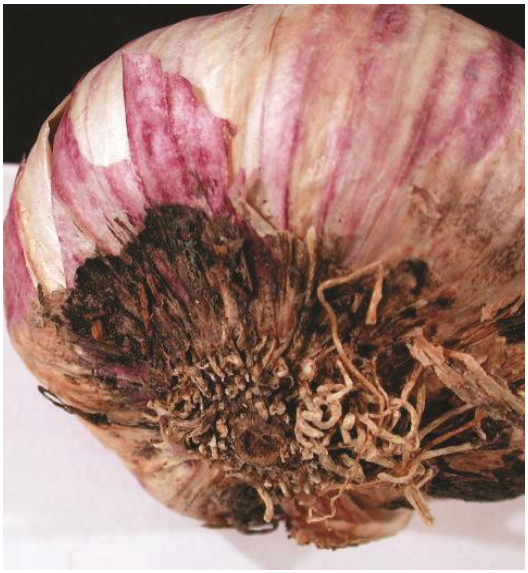
Cabeza negra, Carbonilla (Sp.)

Cause

Alternaria embellisia (= *Embellisia allii*, *Helminthosporium allii*)

Symptoms

This fungal disease appears most frequently as irregular dark areas on outer scales of garlic heads, usually near the base of the bulb. Dark areas may form on the backs and sides of cloves within a head. If the cloves are damaged during cultivation, cultivation or handling, the fungus may grow into the cloves. In Oregon, the fungus rarely infects anything but the scales. Red garlic is reportedly not as susceptible as white garlic, but is not immune.



Discoloration of red garlic scales due to *Alternaria embellisia* (Photo by Melodie

Occurrence

Disease is sporadic in production fields and can seriously impair health of young plants. In Oregon, the impact is more on garlic post-harvest than in-season, and symptoms can often be seen at harvest and before storage. The disease has been reported in Oregon, Washington, California, and Idaho; Montana, North Dakota, and New Mexico have also reported the disease.

Isolates infecting garlic can also infect onion and leeks.

Outer scale discoloration typical of skin blotch caused by Alternaria embellisia. (Photo by Melodie Putnam)

Disease cycle

The skin blotch fungus overwinters in plant debris, infested soil, and diseased cloves. This disease is more of a problem in wet years, in garlic which is stored wet and cool, or garlic which is moist when packaged. In Japan this disease was common in supermarket garlic wrapped in plastic.

Management

- Peel off the discolored outer scales of the garlic heads
- Use healthy cloves for planting
- Do not store visibly diseased heads
- Keep humidity in storage low
- Wrap garlic in breathable material for marketing

References

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