Quick Reference Guide for

Pulse Crop Ascochyta Blight

The disease known as Ascochyta blight can be a serious problem in pulse crops such as chickpea, lentil, and field pea. Ascochyta blight is seed transmitted and can be spread by infected plant residue blown into a field. Ascochyta blight is crop specific, meaning that lentil Ascochyta blight will only infect lentil and not chickpea, field pea, or other pulse crops. The same is true for chickpea and field pea Ascochyta blight. There are similarities in the symptoms of Ascochyta blight on pulse crops, but controlling this disease varies among crop types.

Lentil Ascochyta Blight

Symptoms of Ascochyta blight on lentils can occur on leaves, pods, and stems as white to tan spots with a darker outside margin. The centers of these lesions can be speckled with the black fruiting bodies which contain spores of the fungus. Infected seed can be discolored with a brownish color. Moist weather is conducive to the development and spread of the disease. Ascochyta blight can cause yield losses of 30-50% in susceptible varieties. Effective control measures include planting disease-free seed, adequate crop rotation, application of fungicides, and using resistant varieties.

Chickpea Ascochyta Blight

Ascochyta blight can effect all above ground portions of chickpea plants. This disease can be very devastating in chickpea as it can spread very quickly and can cause significant yield losses. Relatively low seed infection levels can cause serious problems in the field. Symptoms on chickpea include the development of dark, sunken lesions which contain rings on the outer margin. Spores are often present in these lesions. Cool, moist weather conditions favor development of Ascochyta blight. However, spore production can occur under relatively dry conditions providing inoculum for rain splash secondary infections. The best control measures for Ascochyta blight in chickpea are to use disease-free seed, plant resistant varieties, and use adequate crop rotation.

Field Pea Ascochyta Blight

Field pea can be infected by more than one species of the fungus. All above ground portions of pea plants can be susceptible to this disease. Symptoms on peas include the development of purplish black to brown spots or lesions on stems, leaves, and pods. Black spore producing structures may form on these lesions. Pod lesions may become sunken. The fungus can overwinter in seed, infected crop residue, and in the soil. The best control measures are crop rotation and using disease-free seed.

Testing

The Seed Department currently conducts seed tests for Ascochyta blight in lentil, field pea, and chickpea. Results of this test are reported as percent infected seed of 500 seed tested. This test is typically completed in 8-10 days and requires varying amounts of seed depending upon the crop. Small seeded types such as lentil require a minimum of 75g while larger seeded types such as chickpea or field pea require a minimum of 250g of seed. Chickpea samples can also be tested for Ascochyta blight using 1,000 seed if required. Please contact the department for any questions regarding testing.