

Chickpea seed

Cicer arietinum (Leguminosae)

Fast Facts:

Number of acres in Washington: 400-500
Number of Growers: 10
Value of production in Washington: \$144,000

Description of crop:

Production practices are similar for chickpeas and chickpea seed. There are two types of chickpea seed grown in Washington, the kabuli and the desi. Almost all of the chickpea seed grown here is the kabuli type. Generally 150-170 lbs of chickpea seed per acre is needed. The chickpea seed is divided into two sizes, large (>9mm) and small (<8mm). The seed size has a large effect on the kabuli chickpea price with the smaller seed size being of lower value. Seed cost is one of the major inputs in kabuli chickpea production. It is generally an expensive seed at \$80-\$100 per acre thus good quality certified chickpea seed should be used.

Key pests:

Weeds are the most problematic type of pest in chickpea seed production. The chickpea seed is a slow growing, 120 day crop that gives weeds plenty of time to flourish if not controlled. Chickpea seeds are not very competitive with weeds thus weeds can inhibit an establishing crop or hinder mechanical harvest. Canada thistle, field bindweed, knotweed and mustards cause problems by competing with the crop for sunlight, water, and nutrients. Seeds from lambsquarter and nightshades can contaminate the seed crop. Nightshade and other green weeds must be cleaned from the seed prior to storage, in order to avoid staining the seed. Ascochyta blight and root rots are the main diseases in chickpea seed. Insects such as wireworms and cornseed maggot can also be pests.

Key pesticides:

Weeds can be controlled with a pre-plant herbicide such as Pursuit or Spartan but currently there is little available for post-emergent control. Root diseases can be controlled with Maxium. Disease resistant varieties should be picked when growing chickpeas. Two new varieties that have shown resistance to ascochyta blight are Sierra and Troy. However this does not guarantee immunity from ascochyta blight. Wireworms can be controlled with Cruiser applied as a seed treatment.

Critical pest control issues:

The most critical issue in seed production is avoiding contamination from weeds and diseases that move with the seed. The kabuli seed has a very thin seed coat making it susceptible to infection from soil borne pathogens. Seeds treated with a fungicide can improve emergence and yield by reducing Pythium at the time of seedling emergence. Obtaining and maintaining effective herbicides is a critical concern to growers.

Expert contacts:

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Sources:

Washington Agricultural Statistics Service. *Washington Agricultural Statistics 2007*. Washington State Department of Agriculture.

U.S. Dry Pea and Lentil Commission. November 2007

**Location
of production:**

In Eastern Washington, Spokane, Walla Walla and Whitman Counties

Pictures:



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