Coriander Seed

Coriandrum sativum (Umbelliferae)

Fast Facts:

Acres in Washington:	800-1200 acres
Percent: U.S. Acreage:	33% average
Percent Acre Value:	$900-$1200 average
Value of Production in Washington:	$720,000-$1,500,000
Number of Growers:	less than 25

Description of crop:

Coriander seed is an annual that is direct-seeded typically in March or April and is harvested in late August or early September. Coriander seed is used to raise cilantro if used vegetatively as a spice. The crop is called coriander if the seed is used as a spice. Occasionally, transplants produced in western Washington or California are planted in eastern Washington. These transplants are called stecklings and are used to replace any of the crop which is lost due to winterkill. The crop is hoed to remove weeds and rogued to remove plants not displaying true varietal characteristics. At harvest, the crop is cut windrowed and dried in the field for 10 to 14 days. After drying, the crop is threshed, and the seed is sent to a conditioning plant, where it is cleaned to 99 percent purity. Seed crops must have specific isolation distances to prevent cross pollination. Isolation distances must be maintained for both different varieties of the same crop and different members of the same family of crops.

Key pests:

In eastern Washington, lygus bugs is a most common insect pest. Other insect pests include loopers, redbacked cutworm, variegated cutworm, European spider mite and two-spotted spider mite. In western Washington, aphids and thrips are a problem. Weed pests in eastern Washington include Canada thistle, nightshades, pigweeds, lambsquarter, wild buckwheat, volunteer crops, foxtail and barnyard grass. In western Washington, weed pests include shepherdspurse, mustards, lambsquarter, pigweeds, smartweed, henbit, groundsel, chickweed, wild turnip, quackgrass, wild oat, Canada thistle, bolt thistle, vetch, nightshades and bed straw. Shepherdspurse is one of the more problematic weeds. Weeds are serious pests due to two issues. The seeds that the weeds produce are often very difficult to sort out of the seed crop. If the contaminating seeds are too costly or impossible to sort out, the seed crop is considerably lowered in value or rendered unmarketable. Weeds also serve as a host for insects and diseases. Throughout Washington, diseases of coriander seed are rare. Possible but infrequent diseases include bacterial blight, aster yellows, S*clerotinia*, powdery mildew and *Alternaria*.

Key pesticides:

To control lygus bugs, bifenthrin is applied to all acreage prior to bloom, and chloryprifos is applied occasionally after bloom. Trifluralin, pendimethalin, fluazifop-butyl and sethoxydim are used for weed control; however, hoeing is still necessary to supplement control. Iprodione is applied as a seed treatment to control *Alternaria.* Growers concentrate on longer crop rotation periods and increased sanitation practices to reduce pathogen build up in the soil.

Critical pest control issues:

Beet leafhoppers that vector a phytoplasma called beet leafhopper transmitted virescens agent (BLTVA) has emerged as a new problem in coriander seed. This disease is vectored by the same insect that vectors aster yellows. BLTVA can be production ending if better management tools are not developed. The loss of dimethoate was significant. Mitigation to comply with urbanization, salmon and water buffer issues are expensive. Efficacious herbicides are critical for seed production. Weeds not only compete with the seed crop but act as host for insects and diseases. Weed seeds if they cannot be easily sorted out from the seed crop will cause the value of the seed crop to drop or even cause the crop to be unmarketable.

Expert contacts:

Don McMoran
Agriculture and Natural Resources Extension Educator
WSU Skagit County Extension
360 428 4270 ext 225
http://skagit.wsu.edu/

Timothy W. Miller, PhD., Weed Scientist
Washington State University Mount Vernon
Northwestern Washington Research & Extension Center
16650 State Route 536
Mount Vernon, WA 98273

Lindsey duToit, PhD. Plant Pathologist
Washington State University Mount Vernon
Northwestern Washington Research & Extension Center
16650 State Route 536
Mount Vernon, WA 98273

Mark Trent
WSU Grant/Adams Extension Educator
PO Box 37
Ephrata, WA 98823

Location of production: Coriander seed is grown in Grant and Adams counties and in the Skagit Valley.

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Coriander Seed Production in Washington State

Counties Producing Coriander Seed*

500 acres or less

100 acres or less

* Includes only those counties with significant crop acres. The crop may also be produced in counties not highlighted on the map.

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Deborah Bahs - April 2007