

Pepper (chili)

Capsicum annuum, *C. frutescens* and *C. chinense* (Solanaceae)

Fast Facts:

Acres in Washington: 500 in 2007 Number of Growers: 200 in 2007
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Description of crop:

All hot peppers are non-bell peppers but not all are hot. The fruit is smooth skinned and can grow up to 8 inches long. It is often associated with Mexican cuisine. There are various types of small-fruited hot peppers that are grown for drying to produce the cayenne and red pepper condiments. Some varieties are pickled. Chili peppers can be eaten raw or cooked for its hot flavor, which is concentrated along the top of the pod. The stem of the pod has glands that produce capsaicin. This is the substance that gives chili peppers their intensity. This is also the primary ingredient in pepper spray. While capsaicin affects mammals, birds are not sensitive to it. The white pith that surrounds the seeds contains the highest concentrations of capsaicin. Thus removing the seeds and inner membranes will reduce the heat of the pod. Chili peppers are always transplanted to the fields in Washington after the last frost. Chili peppers are all hand harvested in Washington. The chili pepper is a member of the nightshade family. Even though chili's are thought of as a vegetable, their culinary use is often as a spice. There are entire breeds of chili peppers, which are not intended for consumption but are grown for decorating and are called "ornamental" peppers.

Key pests:

The green peach aphid and cabbage loopers are the primary insect pests. Diseases associated with chili peppers are often caused by the soilborne fungi *Phytophthora*, *Rhizoctonia* and *Pythium*. The most serious weeds affecting peppers are nightshades, because they are in the same family as peppers. Field bindweed is also a problem.

Key pesticides:

The green peach aphid and cabbage looper are controlled with Admire or Assail. The root rot diseases are controlled with metalaxyl. Treflan and Devrinol are effective on most weeds except nightshades and field bindweed. The best weed prevention is to grow peppers on plastic under drip irrigation.

Critical pest control issues:

Growers need to remove any infected crop debris and destroy any host plants to keep aphid populations down. Aphids are also controlled through biological controls with common predators such as lacewing, lady beetles, and parasitic wasps. Workers who smoke should not handle the pepper transplants or they risk spreading the tobacco mosaic virus. Rubber gloves should be worn. Control of nightshades and field bindweed are concerns for growers. Peppers can easily be grown organically since they respond well to manures and require little spraying.

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**Location
of production:**

In eastern Washington: Adams, Benton, Franklin, Ferry, Grant, Klickitat, Spokane, Stevens, Okanogan and Yakima counties. In western Washington: Jefferson County.



Chili Pepper Production in Washington State

Chili Pepper Plant



■ Area of Chili Pepper Production