

Sweet corn seed

Zea mays ver.rugosa (Gramineae)

Fast facts:

Acres in Washington: 3,000
Number of Growers: 100
Per acre Value: \$850
Value of production in Washington: \$2,550,000

Description

Of crop:

Washington ranks 2nd in sweet corn seed production. Sweet corn is a warm weather crop that is a single stemmed annual grown from one seed. The stem produces one to three ears each consisting of a cob on which the seed is embedded. The production of sweet corn seed is identical to the production of seed for field corn. Whether the corn is open pollinated or a hybrid, isolation distances need to be maintained otherwise outcropping can occur. An isolation distance of 500 ft up to 2 miles is recommended to prevent this. The varying distance is based on different requirements for different varieties. Growers also consider staggering their plantings so that there is a difference in maturity between crops. The wide use of hybrid varieties has revolutionized growing sweet corn for seed. When a grower uses the seed of a hybrid they have to buy new seed each year to maintain the quality since seed saved from a hybrid crop doesn't reproduce another crop of the same quality. This requires a large amount of hybrid seed to be produced each year. The seed itself is relatively delicate and virtually useless if stored longer than one year. Seed sizing is widely used in the seed industry to improve uniformity of emergence and stand quality.

Key pests:

Weeds are the major pests in sweet corn seed production. This includes grasses, lambsquarter, nightshade, Russian thistle, purslane, and kochia. Since sweet corn has high sugar content it attracts insects pest such as the corn earworm. Other pests include the seed corn maggot, wireworms and the Banks grass mite and twospotted spider mite. Early season cutworms and armyworms can also cause stand loss. Common smut, stock rot and ear smut are the problem diseases in sweet corn seed production.

Key pesticides:

Weeds can be controlled with Dual or Atrazine. The corn earworm is controlled with Brigade, Asana, Warrior, Lannate and Mustang. The seed corn maggot and wireworms are controlled with Cruiser or seed treated with Lorsban. For cutworms and armyworms use Brigade. Mites are controlled with the use of miticides. Mites can also be kept in check with overhead watering since dry conditions favor increased mite populations. For bacterial soft rots use copper sulfate.

Critical pest

Control issues:

Obtaining registrations for pesticides that effectively control mites, head smut and erwina stalk rot is an important issue to growers. Growers should use seed that is properly treated with fungicides and insecticides for the best germination and stand establishment. Since sweet corn is wind- pollinated, quality is best if the stands are isolated from field corns. If possible sweet corn should be planted upwind of field corn.

Expert contacts:

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Location

Of production:

In eastern Washington: Adams, Franklin, Grant, Lincoln. In western Washington: Jefferson County.



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Sweet Corn Seed Production in Washington State

