

# Eggplant

## Cultivars

Contact Manitoba Agriculture's Vegetable Specialist for variety information.

## Climate and Soil Requirements

Eggplants are a warm season crop, they are not tolerate of frost. The crop produces best in direct sunlight with daytime temperatures of 25°C and night-time temperatures of 20°C. Eggplants will yield well on a wide range of well-drained soils that contain ample organic matter. Ideal soil pH for production is 5.5 to 6-8.

## Seed Treatment

Use hot water-treated seed before planting.

## Transplants

Eggplants are a long season crop and must be started indoors. Seed is sown 8 to 10 weeks before field planting. Seeds germinate best at 26° to 29°C in sterilized soil. Care should be taken not to chill plants at any stage of development. About 4 ounces of seed produces transplants for one acre.

## Starter Solution

At transplanting, apply a high-phosphorous starter solution such as, 1 L of 10-34-0 per 100 L of water or 1 L of 6-24-6 per 75 L of water. Under high temperature conditions or on dry sandy soils, reduce the amount of fertilizer by one-half but continue to use the same volume of water. This will reduce the risk of crop injury under these growing conditions.

## Seeding and Spacing

Set plants 1 ½ to 2 ft (45 to 60 cm) apart in rows 3 to 4 ft (90 to 120 cm) apart.

## Fertilizer

If required, contact your Ag Supply, Manitoba Agriculture, or fee for service agronomist for fertilizer recommendations.

## Irrigation

Eggplants require ample moisture at all times. As a general rule, eggplant requires 1 inch (2.4 cm) of water on a weekly basis.

## Pest Management

### Diseases

#### Seed Borne Fungi

As a precaution against fungi that can survive in eggplant seed, purchase hot-water treated seed or treat as follow: Using a large cheesecloth bag, fill half full of seed and place in a large container of warm water. Stir the seed bags and water to maintain uniform temperature, measure temperature with an accurate thermometer. Soak seed at 50°C for 25 minutes.

#### Damping-off, Seedling Blight and Seed Decay

Treat with a recommended seed treatment fungicide. These diseases tend to be problems under conditions of high soil moisture in cool, poorly drained soils. The fungi responsible for these diseases persist in soil indefinitely. Always use high-quality seed.

#### Verticillium Wilt

Sow and transplant in steamed or fumigated soil. Do not plant in fields where verticillium wilt has been present unless the soil has been fumigated. Good weed control is an important part of wilt control. A higher incidence of wilt may occur following peppers, tomatoes, eggplant, potatoes, strawberries and raspberries.

#### Anthracnose Fruit Rot

Spots are generally variable in size, but less than a centimetre wide, on the ripened fruit. Often the side of the fruit contacting the ground tends to show more severe symptoms relative to the rest of the fruit surface. The spots can merge, forming large sunken areas on the fruit surface. During moist weather, a tan to pink coloured ooze may be

observed coming out of the spots. Severe infections of fruit can cause the fruit to drop to the ground, the pedicel (fruit stalk) remains intact. As the eggplant loses moisture, it will appear black in colour. Tiny brown spots may appear on leaves and stems.

Removal of crop debris, after harvest, will reduce the likelihood of the fungus surviving from one season to the next. Rotation of non-solanaceous (tomato, pepper, potato, and eggplant) plants is advisable, as the fungus can survive for years on infected residues.

#### **Early/Alternaria Blight**

Though more of a problem on tomato, early blight can be a problem on eggplant. Leaf spots are dark brown and have a “target spot” (concentric circles within each other) appearance. As they age the spots take on an irregular shape, with a yellow halo around the dead tissue. As the spots become numerous, the entire leaf dies and they fall. The fruit themselves may also appear to be spotted. Extended periods of moisture and high temperatures could lead to complete defoliation, which may result in fruit damage attributed to sunscald and anthracnose.

Irrigate at times to avoid long moisture periods, rotate in a three-or-four-year rotation, to eliminate crop debris, and avoid as much as possible injury to the plants, that permit entry of the fungus.

### ***Insects***

#### **Flea Beetles**

Begin monitoring for flea beetles as soon as the transplants are set in the field. If beetles are found, apply one of the registered insecticides.

#### **Aphids**

If monitoring indicates a need, spray with a

recommended insecticide.

#### **Tarnished Plant Bug**

Monitoring for tarnished plant bugs should begin at the time of flowering. If necessary, apply a recommended insecticide.

#### **Colorado Potato Beetle**

If monitoring indicates a need, use a recommended pest control product.

Note: The Colorado potato beetle shows resistance to a number of registered insecticides in many areas of Manitoba.

### **Weeds**

Competition from weeds can reduce yield and also make harvesting more difficult. If required, contact your Ag Supply agronomist, Manitoba Agriculture agronomist, or fee for service agronomist/consultant for weed control recommendations.

### **Harvesting and Storage**

Fruit may be harvested at any time after reaching a sufficient size. It should be taken from the plant before the flesh becomes tough and the seeds begin to harden. The fruit is generally harvested when half grown, and used in its immature stage. Eggplant is subject to chilling if stored at temperatures below 4°C. Optimum temperatures for storage are 7° to 10°C, and 90% relative humidity.