

Strawberries



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Strawberries are one of the most prized fruits used in North Dakota homes. The information in this publication will serve as a guide in the production of strawberries for home use.

Types and Varieties

Everbearing strawberries produce a crop in late June and early July, with a second, lighter crop starting in late summer and continuing until freeze-up if the conditions are favorable.

Many varieties of strawberries are available, but some are unsatisfactory under North Dakota growing conditions.

The following everbearing varieties are recommended for general planting:

- **Ft. Laramie** – This all-season everbearing variety produces runners abundantly. Plants are very cold-hardy. Fruits are sweet tasting with exceptional aroma.
- **Ogallala** – This is a productive variety that has become popular with home gardeners. The berries are large and of good quality.

June-bearing varieties produce their entire crop between mid-June and mid-July. The recommended varieties are:

- **AC Wendy** – This is the earliest of the June-bearing varieties and produces large fruits.

- **Annapolis** – This is an early variety that is pale red and has good yield.
- **Honeoye** – This is a vigorous producer and good-flavored fruit. It is excellent for fresh or preserving purposes.
- **Glooscap** – It is productive and produces medium fruits that are excellent for processing because the cap separates easily.
- **Mesabi** – This midseason variety has good disease resistance to red stele and leaf diseases.
- **Sparkle** – It is a late-season variety with smaller fruits.

Culture

Watering – Normal rainfall in North Dakota is not quite enough for highest production. Strawberries usually need supplemental water through some form of irrigation.

Site and soil – The site for a strawberry planting should be well-drained and

preferably on loamy soil. However, satisfactory crops may be produced on heavy clay or light sandy soils. Practice shallow cultivation to avoid root injury.

Composted or well-rotted manures are good fertilizers for strawberries, but the manure should be applied in the fall because of food safety concerns. Commercial fertilizers may be used but are best applied in the spring.

Time to plant – The best time to plant strawberries usually is in early spring (**Figure 1**). However, they may be planted in late summer (before Aug. 15), provided enough soil moisture is available to get the plants established before winter.

Planting stock – Use only vigorous, young plants when starting a new patch. Young plants can be distinguished from old ones by their light-colored roots. Old strawberry plantings may be diseased; therefore, buying new, healthy plants from a reputable dealer is highly recommended. Proper depth of planting is important as shown in **Figure 2**. Water plants after setting.



Figure 1. Prune plants just before they are set out. (A) Remove a portion of the roots as well as dead leaves and any flowers.



Figure 2. Strawberry plants should be set carefully at the proper depth. (A) Too shallow (B) Correct (C) Too deep.

Planting Systems

The matted-row system is used most commonly in home gardens. Rows are spaced 3 to 4 feet apart and plants are set 18 to 30 inches apart in the row. Allow runners to form a mat 15 to 18 inches wide, with plants 4 to 6 inches apart.

Many home gardeners allow the plants to grow too close together; this results in small and inferior berries.



The hill system sometimes is used to obtain large berries of exceptional quality. It requires more hand work than the matted-row system. Space double rows 2 to 3 feet apart, with plants 12 to 15 inches apart in the rows. Remove the runners as they appear.

Remove blooms – With spring-planted everbearing varieties, keep the blossoms removed until July 15, then allow them to bloom and produce a crop. The production of fruit on newly set plants restricts vegetative growth and results in poor yields. Do not allow June-bearing sorts to produce a crop the same season as planted.

Weed control – Hand hoeing and shallow cultivation are necessary for weed control. Chemical weed control has been successful in strawberries. Be sure to follow directions for time and rate of application for approved chemicals.

Early runners should be allowed to root while later ones should be removed. Many home gardeners allow plants to become too thick in a matted row. One should allow at least 4 to 6 inches between plants. Strawberries are probably the worst “weed” in many home patches. Small berries, poor quality and more disease problems are the result.

Winter Protection: Mulching

When the ground is frozen in the fall, cover your strawberries with a 4-inch layer of clean straw. Soybean straw is very satisfactory. It is frequently free of weed seeds and it is not inclined to pack down. Do not depend on snow for winter protection.

When the plants begin growth in the spring, remove the mulch. Allow part of the mulch to remain between the rows to help keep down weeds and also to conserve moisture. A mulch under the berries keeps them from becoming soiled.

Under ordinary conditions, you should not expect your strawberry bed to bear more than two seasons in succession.

Start new beds from the old (as long as your planting is healthy), using only young plants. Bed renovation should not be attempted unless the plants are vigorous and relatively free from weeds, insects and diseases.

Bed renewal is accomplished in the matted-row system by narrowing the rows with a plow, cultivator or hoe to a strip 8 to 10 inches wide. Thin the plants, leaving only the most healthy and vigorous. Then proceed with a new planting. You may want to purchase healthy, disease-free plants instead of renewing an old bed because plants may be infected with viruses.

Many insect, disease and weed problems can be avoided by fruiting a bed only two seasons and then starting a new one.

Diseases and Insects

Strawberry diseases are not a serious problem in North Dakota. Winter injury may be confused with or complicated by certain types of root diseases. However, adequate mulch protection and moisture with good surface drainage usually prevent these troubles.

Virus diseases are responsible for reducing yields. Destroy any bed suspected of having a virus infection and make a new planting with healthy stock.

In most plantings, preventive measures are more effective than spraying for control of strawberry pests. Sanitary measures such as mowing and burning leaves after berry harvest, clean tillage, and removal of weeds and rubbish bordering the planting, coupled with the use of healthy planting stock and short rotations, are practical things you can do to prevent disease problems in your strawberry bed.

A new invasive insect called spotted wing drosophila may become a pest in North Dakota strawberries. Everbearing strawberries are at more risk of infestation because spotted wing drosophila populations peak in late summer. Refer to publication E1715, “Integrated Pest Management of Spotted Wing Drosophila in North Dakota,” for information on insect identification and treatment options.

This publication was authored by Ron Smith, retired NDSU Extension horticulturist.

For more information on this and other topics, see www.ag.ndsu.edu

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