

Home Gardening Series  
**Brussels Sprouts**

Dr. Craig R. Andersen  
Extension Horticulturist -  
Vegetables

**Environment**

**Light** – sunny  
**Soil** – well-drained, loam  
**Fertility** – rich  
**pH** – 5.8 to 6.8  
**Temperature** – cool  
**Moisture** – keep moist

**Culture**

**Planting** – **spring:** transplant early or  
**fall:** sow seeds early to  
midsummer or transplant  
late summer  
**Spacing** – 12-18 x 24-30 inches  
**Hardiness** – hardy biennial  
**Fertilizer** – heavy feeder

**Brussels Sprouts –  
*Brassica oleracea*  
gemmifera**

Brussels sprouts are a variety of cabbage. Their existence was first recorded in 1587, and they were apparently developed in the 15th century in the northern part of Europe that is now Belgium. Whether they originated in Brussels, they were cultivated there for centuries and rapidly spread to other countries around the world. In England they are a popular vegetable served with holiday meals. Brussels sprouts first became popular in Europe after World War I, when consumption of vegetables increased considerably, but they are still among the minor vegetables in the United States.

Brussels sprouts (named after Brussels, Belgium, where the vegetable was first popular) are hardy, slow-growing, long-season vegetables that belong to the cabbage family. They can be grown with success in Arkansas if planted very early in the spring or in late summer for fall production.



**Cultural Practices**

**Planting Time**

These are cool-season plants that thrive during long periods of cool weather we have in the fall and early winter. Use transplants in late winter for a late spring harvest. Fall planting is generally the best. Sow seed in a protected location in the garden four or five weeks before transplanting. Transplant the seedlings to the permanent garden location. For fall harvest, transplant in early to midsummer about the same time you would plant late cabbage.

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## Cultivars

Crop	Cultivar	Days to Maturity	Seed/ 100 Ft of Row	Disease Resistance or Tolerance	Sources	Remarks
Brussels Sprouts	Jade Cross Hybrid	95	50 plants	Botrytis	1, 3, 4, 5, 6	Uniform maturity, good yields.
	Long Island Improved	95	50 plants		2, 6	Large plant, good yields.

When transplanting, use 8 ounces per plant of a starter fertilizer solution (1 tablespoon of 20-20-20 soluble fertilizer per gallon of water).

### Sources

There are many different sources for these cultivars. Some of these include the following:

- 1vh W. Atlee Burpee Company  
300 Park Avenue  
Warminster, PA 18974-0001  
Tel: 1-800-888-1447
- 2v Chesmore Seed Company  
5030 Highway 36 E.  
St. Joseph, MO 64507  
Tel: 1-800-383-0865
- 3vh Gurney's Seed and Nursery Company  
110 Capital Street  
Yankton, SD 57079  
Tel: (605) 665-1930
- 4vh Park Seed Company  
1 Parkton Avenue  
Greenwood, SC 29647-0001  
Tel: (800) 845-3369
- 5vh Stokes Seeds, Inc.  
P. O. Box 548  
Buffalo, NY 14240-0548  
Tel: (716) 695-6980
- 6v Willhite Seed Company  
P. O. Box 23  
Poolville, TX 76487  
Tel: 1-800-828-1840

v – vegetables

h – primarily herbs

### Spacing and Depth of Planting

Space plants 24 inches apart in the row. Cover the seed 1/4 to 1/2 inch deep. Transplant the seedlings when they are about 3 inches high.

### Care

Brussels sprouts are grown much like related cole crops – cabbage and broccoli. Apply one side-dress application of nitrogen fertilizer when the plants are 12 inches high, and then every 3 to 4 weeks. Water to keep the plants growing vigorously during the heat of the summer. Without ample soil moisture, the crop will fail. Cultivate shallowly around the plants to prevent root damage. The sprouts form in the axils of the leaves (the space between the base of the leaf and the stem above it).

Side-dress the plants with a nitrogen fertilizer, 10-20-10 or 13-13-13, when they are half grown. On sandy soils or after periods of excessive rain, fertilize every three weeks. Use shallow cultivation and mulches to control weeds.

Commercial gardeners top the plants (removing the apical meristem) to promote the growth of the sprouts once the plants have reached a height of 24 to 36 inches. The spring crop should be shorter to hasten development before it gets too hot. Gardeners will remove the lower leaves to expose the sprouts. They believe the sprouts develop better if the lowermost six to eight leaves are removed from the side of the stalk as the sprout develops. Two or three additional leaves can be removed each week, but several leaves should be left intact on top. Removing the lower leaves will accelerate harvest, but this is not necessary in the home garden.

### Common Problems

#### Diseases

Yellows or fusarium wilt is a common disease. Yellowing and browning of lower leaves is the first sign of the disease. The plant will be stunted before wilting occurs. Grow varieties resistant to yellows.

Blackleg and blackrot are two bacterial diseases that cause severe losses. The plant may be stunted, turn yellow and die; the taproot often rots away. Blackleg is named for the black cankers on the stem. Blackrot can be recognized by large, V-shaped,

yellow-to-brown areas in the leaves, starting at the leaf edge. The veins turn black. Soft rot usually follows blackrot infection. Control of blackleg and blackrot is essentially the same. Both diseases are spread by seeds, transplants and insects. Buy seeds that have been treated with hot water to kill the disease organism. Do not buy transplants that are wilted, are an unhealthy shade of green or have black spots on the stems or leaves. When diseased plants are found in the garden, collect the entire plant and dispose of it. Do not put diseased plants in the compost pile. Avoid cultural practices (crowding, overwatering, planting in poorly drained soil and inadequate insect control) that support blackrot and blackleg disease organisms.

## Insects

**Aphids** – Apply a suggested insecticide before Brussels sprouts begins to head.

**Flea Beetles** – Apply a suggested insecticide.

**Cabbage Worms** – Three species of cabbage worms (imported cabbage worm, cabbage looper and diamondback worm) commonly attack the leaves and heads of Brussels sprouts and related cole crops in Arkansas. Imported cabbage worms are velvety green caterpillars. The cabbage looper crawls by doubling up (to form a loop) and then moves the front of its body forward. The moth is brown and is most active at night. Diamondback worms are small, pale green caterpillars that are pointed on both ends. The moth is gray with diamond-shaped markings when the wings are closed.

Larval or worm stages of these insects cause damage by eating holes in leaves. The adult moths or butterflies lay their eggs on the leaves but otherwise do not cause damage to the plant. The worms are not easy to see because they are very small and blend in with the leaves. Cabbage worms are quite destructive and will ruin a crop if not controlled. They are even worse in fall gardens than in spring gardens. Loopers, a severe pest of Brussels sprouts, are easy to control using the biological insecticide *Bacillus thuringiensis* (B.t.). This material gives excellent control of worms and can be used with complete safety around the home. It is sold under many trade names such as Thuricide, Dipel and B.t. Be sure to use one to two drops of a liquid detergent per gallon of spray mixed

to ensure complete wetting of the waxy leaf surface. Protect your plants with suggested biological or chemical insecticides from the time they are transplanted until harvest.

## Harvesting

The small sprouts or buds form heads 1 to 2 inches in diameter. They may be picked (or cut) off the stem when they are firm and about 1 inch in size. The lower sprouts mature first. The lowermost leaves, if they have not already been removed, should be removed when these are harvested. Harvest the sprouts before the leaves turn yellow.

**approximate yields** (per 10 feet of row) – 10 to 18 pounds

**amount to raise per person** – 10 pounds

**storage** – very cold (32 degrees F), moist (95 percent relative humidity) conditions, 4 to 6 weeks

**preservation** – freeze

## Frequently Asked Questions

**Q. Why do my sprouts remain loose tufts of leaves instead of developing into firm heads?**

A. When the sprouts develop in hot weather (this may be spring or fall), they often do not form compact heads. That is why they are a better fall and winter crop. Use transplants for early planting and maintain ample soil moisture.

**Q. When do I plant Brussels sprouts for maximum production?**

A. Brussels sprouts are sensitive to temperature. In general, Brussels sprouts produce best when daytime temperatures average about 65 degrees F or less. Brussels sprouts grow best when planted in mid to late summer for late fall or early winter harvesting.

**Q. Should you pinch or cut the top out of Brussels sprout plants to make them produce more?**

A. In the spring, pinching or removing the growing point of the plant will hasten the development of the sprouts resulting in earlier harvest but will reduce the yield by about one-third.

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