

*College of Agriculture & Life Sciences*  
 Department of Horticultural Science

**HOME GARDEN CABBAGE PRODUCTION**

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Cabbage is grown commercially in eastern North Carolina as both a spring and fall crop, and in the mountains as an early summer and fall crop. Cabbage acreage in North Carolina averages 10,000 to 12,000 acres. The biggest problem in growing this crop is insect control.

**Soils** - Cabbage grows well on a wide variety of soils, but a well-drained sandy loam with high organic matter content is preferred. Avoid soils that dry rapidly.

**Plants** - It's best to purchase plants that have been certified by inspectors from the N.C. Dept. of Agriculture. Using certified plants will reduce the chance of disease and result in more uniform stands. Some recommended varieties are described in Table 1.

**Rotation** - Never grow cabbage or related crops on the same soil more than once every three years. This is necessary to control various root rots. If club root is a problem, broadcast and till in 35

pounds of hydrated lime per 1,000 square feet 2 to 3 days prior to transplanting. Do not do this more than once every 3 years.

**Spacing** - Transplant plants or space seed 9 to 12 inches apart in rows 36 to 44 inches wide for 2- to 3-pound heads. When larger heads are desired, increase spacing in row. Using double rows per bed will increase yields 30 to 50% or more. If double rows are used, in-row spacing should be 12 to 14 inches. Plants in double rows compete with weeds better and produce a more uniform crop.

**Bolting** - When cabbage forms a seed stalk (begins flowering) pre-maturely, it is called "bolting." This is only a problem in spring crops. Some are more tolerant than others. 'Market Prize' is extremely susceptible and is very often a problem variety in spring if plants are grown in eastern N.C. Florida-grown plants of 'Market Prize' have not been as susceptible to bolting.

**Planting Dates**

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Area	Seeding Dates	Transplanting Dates
<b>Eastern</b> (Spring crop)	Sept. 20- Oct. 20	February
<b>Eastern</b> (Fall crop)	Seed directly into field from July 15-Sept. 15.	
<b>Western</b> (Early crop)	Feb. and March	March 15- May 10
<b>Western</b> (Fall crop)	May 1- June 15	June 1- June 15

**Overwintering** - In extreme eastern N.C. along the sounds and in most of the southeastern part of the state, cabbage can overwinter. These plantings should be considered with caution, because winter kill and/or bolting can occur in some years causing complete crop loss. 'Bravo', 'Green Cup', 'Rio Verde' and 'Conquest' are good varieties to use for overwintering. Plant seed October 15 to 30 or transplant November 20 to 30 for best results.

**Fertilization** - Apply lime and fertilizer according to a soil test report. The pH should be 6.0 to 6.4. If the soil is not tested, use 3 pounds of 10-10-10 per 100 square feet. If boron is not added to the fertilizer, spray 1 tablespoon per gallon of Borax directed to the base of the plant.

**SIDEDRESSING** - Apply 3-4 cups of 8-8-8 fertilizer per 100 feet of row 2 weeks after transplanting. Cabbage plants need this as they begin growing. Apply another nitrogen sidedressing 3 weeks later. Cabbage has a high nitrogen requirement early in its growth.

**Weed Management\*** - Cabbage is a shallow rooted crop. Cultivation should be shallow (2 inches or less) and only as needed to control grass and weeds.

**Insect Management\*** - Several insects- cabbage worm, cabbage looper, aphids, flea beetle, diamond back moth, and cabbage maggot (mountain counties only)-present problems for the cabbage grower. Because of the complexity of the problem, it is suggested that home gardeners work closely with their local cooperative extension agent in selection of materials and methods of application.

A control program must be started early. This is especially true for the cabbage looper and other worms. Generally the insect problem is much greater on summer and fall crops, compared to spring crops.

**Disease Management\*** - Disease control begins with seed treatment for black rot control. Plant certification ensures freedom from black rot and keeps this problem in check. Also do not enter garden when plants are still wet. All this will help reduce black rot spread.

**Harvesting** - Harvest only those heads that are well-formed and firm. Some varieties mature uniformly while others are variable. For this reason some varieties can be harvested in 1 or 2 cuttings while others will require selective cuttings 3 or more times.

Once cabbage is cut, move it out of the sun as soon as possible. Cabbage will "sun blister" and lose weight in direct sun. Cabbage can be stored at 32 °F and 98% humidity for up to 5 months.

### **Steps to Successful Cabbage Production**

1. Select a site with well-drained soil.
2. Test soil for fertilizer, lime and nematodes.
3. Choose a proper variety.
4. Use certified plants.
5. Use seed treated for black rot control.
6. Use close spacing and consider double rows per bed.
7. Add boron to the fertilizer.
8. Sidedress.
9. Wait for plants to dry before cultivating soil to control weeds.
10. Use liquid or wettable powder pressure sprays for insect control.
11. Keep cabbage in shade after harvest.

**Table 1 (Part I). Recommended cabbage varieties and tolerance**

Variety	Size	Yellows resistance	Black rot tolerance	Tip burn tolerance	Shape	Color	Days	Hybrid	Spring/ Fall	Uniform
Applause	L	+	+	0	globe	G	72-78	+	SF	--
Bravo	SM	+	0	0	round	G	78-83	+	SF	+
Blue Gem	M	+	0	0		G	78	+	SF	0
Cardinal	L	+	0	0	oval	R	85	+	SF	0
Conquest	ML	+	-	0	globe	BG	75-80	+	S	+
Discovery	S	+	0	0	round	BG	80	+	SF	++
Gourmet	SM	+	0	0	round	BG	70	+	SF	++
Green Cup	M	+	+	--	flat rd.	G	98	+	SF	0
Head Start	S	0	0	0	globe	G	65	+	S	++
Market Prize	M	+	--	0	globe	MG	76	+	S?F	0
Quisto	M	+	++	+	flat rd.	G	88	+	SF	0
Red Acre	S	0	0	0	round	R	75-80	--	S	0
Red Rookie	M	0	0	0	round	R	78-82	+	S	0
Rio Verde	M	0	--	0	round	BG	80-85	+	SF	0
Ruby Ball	SM	0	0	0	oval	R	90	+	SF	0
Savoy Ace	ML	+	0	0	flat rd.	G.	85-90	+	S	0
Showboat	ML	+	+	0	globe		80-84	--	S	0
Solid Blue 760	ML	+	+	0	oval	BBG	76	+	SF	0
Solid Blue 780	ML	+	+	+	round	BG	78	+	SF	0
Sombrero	ML	0	0	0	round	RG	70	+	SF	0

+ = tolerance or resistance or high level.

0 = no tolerance or unknown.

-- = lack of tolerance.

S = small, M = medium, L = large.

G = green, R = red, BG = blue-green.

S = spring, F = fall.