

*Commercial Production of  
Fresh Market Cabbage  
in Kentucky*



*Circular 631*

UNIVERSITY OF KENTUCKY  
COLLEGE OF AGRICULTURE  
COOPERATIVE EXTENSION SERVICE  
AGRICULTURE • HOME ECONOMICS • 4-H • DEVELOPMENT

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## COMMERCIAL PRODUCTION OF FRESH MARKET CABBAGE IN KENTUCKY

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Cabbage can be grown in all areas of Kentucky for fresh market sales. This publication presents recommended cabbage production and marketing practices for growers to help guide them in making the most for their money and time. Projected labor requirements for production and harvesting of an acre of cabbage are presented in Table 1. Estimated

**TABLE 1: PROJECTED LABOR REQUIREMENTS FOR THE PRODUCTION AND HARVESTING OF AN ACRE OF CABBAGE**

Month	Operation	Equipment Used	Times Over	Hours/Acre	
				Man Hours	Power Equipment
February	Plow land	2-14" plows	1	2.0	1.5
March	Broadcast fertilizer, granular insecticide and herbicide.	Drill	1	2.0	0.5
	Disking, harrowing (or dragging)	7' tandem disk	2	2.0	1.0
	Transplanting	1 row transplanter	1	18.0	6.0
	Spraying	Tractor mounted row sprayer	1	1.0	0.5
April	Spraying	4 row tractor mounted sprayer	4	4.0	3.0
	Sidedressing	2 row cultivator	1	1.0	0.5
May	Spraying	4 row tractor mounted sprayer	2	2.0	1.0
	Harvesting and Bagging	Hand labor	2	<u>20.0</u>	<u>8.0</u>
				52.0*	22.0

\*The above labor requirements can be reduced or increased depending upon the size of the equipment used.

\*Additional contributions were made by Russell Robertson, deceased.

expenses and net income per acre are presented in Table 2. *Growers and prospective growers should keep in mind that production of this crop must be coordinated with marketing patterns and trends if they are to maximize net returns.*

### ECONOMIC CONSIDERATIONS

Profits one can expect from growing cabbage depend upon the level of production, the market price of the product, and the cost of

**TABLE 2: ESTIMATED COSTS AND RETURNS PER ACRE FOR CABBAGE GROWN FOR FRESH MARKET, 1971\***

<b>Estimated Value</b>	
25,000 pounds Cabbage @ 3 cents	\$750.00
<b>Cost Items</b>	
<i>Cash Costs</i>	
Fertilizer	\$ 67.50
Plants (15,000 @ \$6.50)	97.50
Chemicals	
Insecticides	27.00
Herbicides	4.00
Machinery Operation	25.50
Containers and Miscellaneous	200.00
Total Cash Items	<u>\$421.50</u>
<i>Overhead Costs</i>	
Depreciation (Machinery and Equipment) \$400.00 @ 10%	\$ 40.00
Interest (\$400 @ 4%)	16.00
Land Costs	
Interest (\$400 @ 5%)	20.00
Taxes	2.50
Total Overhead	<u>\$ 78.50</u>
<i>Labor Costs</i>	
Production, 32 hours @ \$2.00	\$ 64.00
Harvesting, 20 hours @ \$2.00	40.00
Total Labor	<u>\$104.00</u>
<b>Total All Costs</b>	<u>\$604.00</u>
<b>Estimated Profit</b>	<u>\$146.00</u>
<b>Estimated Capital Investment (per acre)</b>	
Machinery and Equipment	\$400.00
Land Value	400.00
Total	<u>\$800.00</u>

\*Actual grower information and South Carolina Agricultural Experiment Station publication AE 334 were used in arriving at information in Table 3.

growing the crop. These items have been estimated in Table 2. In this table it is assumed that 25,000 pounds of cabbage is marketed from each acre and that the market price will average 3 cents per pound. Cost items have been placed in three categories: cash costs, overhead costs, and labor costs.

Cash costs are costs for those items needed in production that must be spent during the production period. Overhead costs are allowable expenses for depreciation of machinery and equipment used in production, interest on investment in land, machinery and equipment, and real estate (land) taxes. All labor has been charged at \$2.00 per hour. Labor requirements have been estimated for the production and harvesting activities. Out of pocket expenses for machinery operation have been estimated at \$1.15/hr.

Your items of cost may be different from those indicated in the table. If so, use your own estimates of costs and returns instead of those in the table. However, items in the table will provide reasonable estimates when you do not have records of your own.

#### SELECTION OF A VARIETY

In selecting a variety one should first consider the market demand. There are two types of markets for cabbage: one for cabbage to be sold fresh, and one for cabbage to be processed. This publication is primarily concerned with the fresh market and its demands.

The fresh market head should be firm with a small core, and weigh between 2 and 4 pounds. This is the grower's goal. In areas where early spring temperatures may drop low enough to kill tender, early heads, the variety chosen should possess cold resistance. The variety chosen should also have resistance to the most common local diseases and resistance to bolting or premature seeding.

Cabbage is usually classified into 5 different types with many varieties under each type.

Varieties of the *Domestic* type usually mature earlier, are more tender in texture, and have less wax on their leaves than do the *Danish* type varieties. *Danish* type is a term commonly applied to late maturing varieties which may be grown for late season marketing purposes. The heads usually have closely compacted leaves overlapping at the crown, and are comparatively smooth and solid between the leaf midribs at the base. The head shape is usually round or oval, but may be slightly flattened at times.

The *Pointed*, or *Wakefield* type is characterized by the pointed shape of the head. This is not being grown commercially to any extent for fresh market in Kentucky.

Varieties of the *Red* type can be recognized by the color of the leaves. Red cabbage can be used to make an attractive slaw, but it is grown to a limited extent in Kentucky, primarily for roadside market sales.

*Savoy* type cabbage is characterized by the crinkled shape of the leaf. This is grown as a specialty item and is seen only occasionally in home gardens.

Varieties of the *Domestic* type are most commonly recommended for Kentucky growers for early fresh market cabbage. Table 3 lists some of the better varieties for Kentucky.

**TABLE 3: RECOMMENDED CABBAGE VARIETIES FOR EARLY MARKET**

Variety	No. Days to First Harvest	
<i>Stonehead</i>	60	A hybrid cabbage. 3-4 pound heads. Extremely firm heads while developing. Yellows resistant.
<i>Emerald Cross</i>	63	An F <sub>1</sub> hybrid. Very early, compact, 2-3 pound heads. High percentage to cut at one time. Not resistant to Yellows disease. Heads do not split easily.
<i>Y. R. Golden Acre</i>	65	An early maturing F <sub>1</sub> hybrid. 2-3 pound heads. Heads may burst. Resistant to Yellows disease.
<i>Greenback</i>	75	Mid-season maturing. 3-5 pound heads. Yellows resistant. Heads hold well without splitting.
<b>Other Varieties to Try</b>		
<i>Pacesetter</i>	55	An F <sub>1</sub> hybrid. Extra early. Excellent quality. Solid head with short core. 2½ to 2 ¾ pound heads. Not Yellows resistant.
<i>Superette</i>	66	Yellows resistant. Uniformity of head size at harvest. Good solid heads. Leaves are blue color.

### SEEDING AND PLANT GROWING

Cabbage plants for an early market crop are commonly shipped in from the south or grown locally in greenhouses (see Figure 1). Locally-grown cabbage plants are preferred over southern grown plants, provided they are properly grown and "hardened off." The advantage of growing



**Figure 1: Excellent cabbage transplants, grown in greenhouse, ready for transplanting to field.**

your own plants or having them grown locally is that you can be assured of the varieties you want when you want them. Seed should be sown from 6 to 8 weeks before the plants are to be transplanted to the field. Seed should be sown 3 to 4 seeds per inch of row, in rows spaced about 6 inches apart in hotbeds or greenhouse groundbeds, and plants later thinned to 12 to 18 plants per foot of row for a good bareroot transplant.

Better quality transplants can be obtained by seeding 8 to 10 seeds per inch of row in seed flats with rows 2 inches apart and then transplanting the small seedlings as the first true leaf begins forming. The seedlings can be transplanted 2" x 2" apart in flats or placed individually in peat pots for transplanting to the field. Extra handling and potting increases the cost of plant growing and is therefore not a usual commercial practice.

The soil or soil mix in which the seedlings will be grown should be tested to determine fertilizer requirements. Most soil will produce excellent transplants when 3/4 pound of a 6-12-12 fertilizer per 100 square feet of soil surface area is worked 4 to 6 inches into the soil before seeding. The soil for growing the transplants should be loamy in nature. It is difficult to pull plants from heavy soils.

*All soil in which cabbage seedlings are to be grown should be sterilized before planting the seed.<sup>1</sup>*

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<sup>1</sup>Refer to Extension publication Misc. 374, "Guide for Chemical Control of Vegetable Diseases," for recommended soil sterilization procedures.



**Figure 2: Well-hardened cabbage transplants of proper uniform size for transplanting to the field.**

Cabbage plants grown for early spring planting should be "hardened-off" before planting to the field. "Hardening-off" is primarily to condition plants so less water will be lost from the cells of newly-set plants. Withholding moisture from a cabbage plant and lowering the surrounding temperature results in carbohydrate accumulation within the plant tissues, which reduces the freezing point of the cell sap. Well-hardened cabbage plants under most conditions can be expected to withstand short term temperatures of 15 to 20°F after being transplanted to the field. Snow coverage and heavy frosts will not kill the plants.

Plants grown in a greenhouse or hotbed should be grown at a day temperature of around 70°F and a night temperature of around 60°F. Before setting in the field, the plants should be hardened for a week to 10 days by withholding water and lowering the temperature to, ideally, 50°F day and night. *Lowering the temperature below 50°F for several days may result in the plants bolting to seed in the field.*

If the plants must be held for several hours before transplanting, lay the plants on their sides on moistened burlap bags and cover them to prevent drying the roots.

#### **SITE SELECTION**

The location of the field and its soil type will influence the growth and development of the plants for early market. Cabbage will



mature earlier when planted in sandy loam soils which face south or southeast than it will in heavier soils on areas with northern exposure. A field should be selected that has not had cabbage growing on it for at least 3 to 4 years. This will aid in reducing the possibility of disease buildup in the soil. *Cabbage should not be planted in areas that are poorly drained.*

## SOIL PREPARATION AND FERTILIZATION

Good tobacco ground will grow good cabbage. A soil with 3 to 4 percent organic matter content is desirable. Soils that will not erode easily should be plowed in the fall of the year in preparation for the early spring crops. Growers may find it difficult to transplant into spring-plowed sod. Weed control will also be more difficult. The soil should be plowed 8 to 10 inches deep.

A soil sample should be taken from the field and analyzed to determine the fertilizer requirements of the field.\* Cabbage grows best on slightly acid soils with a pH of 6.2 to 6.8. Finely ground agricultural limestone should be applied to extremely low pH soils in the fall before planting the following spring. Table 4 shows the amount to apply if lime is

**TABLE 4: LIME REQUIREMENT FOR CABBAGE**

Soil pH	Amount of Limestone to Apply Per Acre
5.3 or lower	3-4 tons
5.3 - 6.0	2-3 tons
6.1 - 6.7	0-2 tons
Above 6.7	None

required. For faster results, hydrated lime may be applied, though it is more costly than finely ground limestone.

Cabbage has a high nitrogen requirement, but also needs adequate levels of phosphorus, potassium and magnesium. Usually sufficient nitrogen, phosphorus, and potassium can be supplied in the complete fertilizer. Magnesium is not usually a problem if the soil has been limed. Table 5 shows recommended fertilizer rates for different soil test readings.

Boron deficiency will cause hollow stem in cabbage. If boron is required, an application of 20 pounds of borax per acre should be sufficient to correct any deficiency.

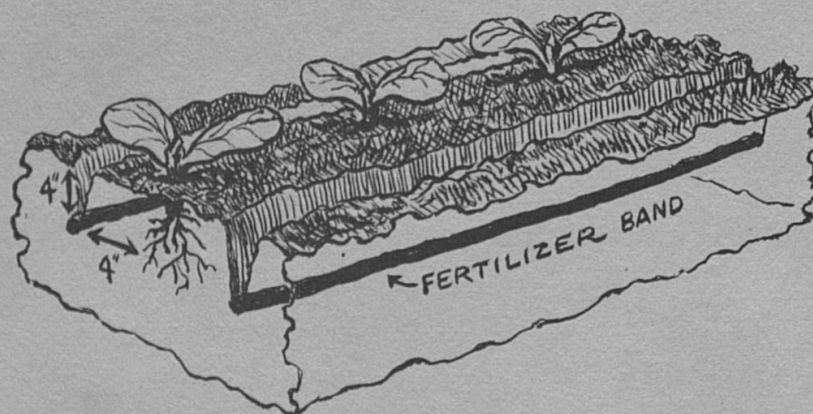
If banding equipment is available, then one-half of the required amount of fertilizer should be broadcast before planting and disked into

\*Refer to Kentucky Cooperative Extension Service Leaflet 139, "How to Take Good Soil Samples." Copies can be obtained from your local county Extension agent or from the Department of Public Information, University of Kentucky, Lexington, Ky. 40506.

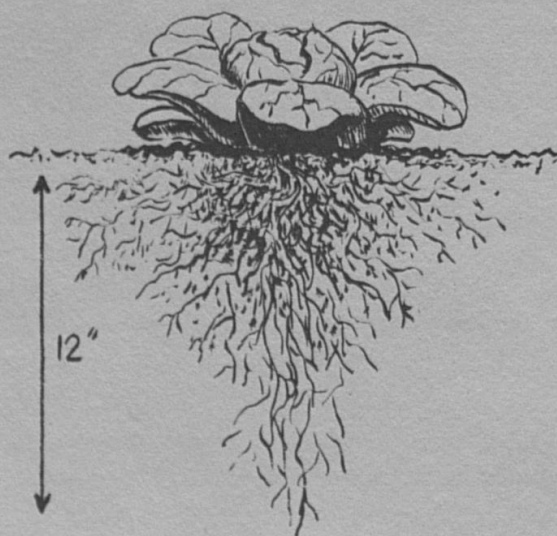
**TABLE 5: FERTILIZER RECOMMENDATIONS FOR CABBAGE**

Soil Test Reading		Amount of fertilizer to Apply Per Acre		
Phosphorus	Potash	N*	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Low	Low	100 lb	180 lb	180 lb
Medium	Low	100 lb	100 lb	180 lb
High	Low	100 lb	60 lb	180 lb
Low	Medium	100 lb	180 lb	100 lb
Low	High	100 lb	180 lb	60 lb
Medium	Medium	100 lb	100 lb	100 lb
High	High	100 lb	60 lb	60 lb

\*An additional application of 30 to 50 pounds of N should be applied as a sidedress application when the cabbage begins heading. This may be placed on the surface of the ground by hand if banding equipment is not available.



**Figure 3: Fertilizer banded to each side of the newly transplanted cabbage plant.**



**Figure 4: Fibrous root system of the cabbage plant.**

the top 6 to 8 inches of the soil. The remaining half of the fertilizer should be placed in a band at transplanting time, 3 to 4 inches to each side of the row and 4 inches deep, as shown in Figure 3. If banding equipment is not available, broadcast all the fertilizer and work uniformly throughout the soil.

Fertilizer should be worked several inches into the soil because the cabbage root system is fibrous and is concentrated primarily in the top 12 inches of the soil, as shown in Figure 4. Since phosphorus and potash move very little in the soil, these elements can be put on well in advance of transplanting time.

### **STARTER SOLUTION**

A starter solution should be prepared by mixing 3 pounds of a 10-52-17 or similar analysis fertilizer in 50 gallons of water. Each plant should receive about one-half pint of this solution when it is transplanted. Transplanters used for transplanting tobacco plants work very well in transplanting cabbage plants. An acre planted to 15,000 plants will require 18 three-pound bags of starter and 900 gallons of water. An insecticide to control cutworms may be added to the solution if the soil has not been previously treated.

### **SIDEDRESS FERTILIZER APPLICATIONS**

Cabbage will respond to additional nitrogen fertilizer applied after the plant has been growing for 5 to 6 weeks. When the cabbage begins forming a head it is recommended that a sidedress application of 50 pounds of nitrogen (N) be applied per acre. The fertilizer may be placed in the middle of the furrows and watered in or applied with special sidedressing equipment. A sidedress application of nitrogen made after the head is well formed can result in the head splitting.

### **COVER CROPS AND CROPPING ROTATIONS**

Since a cabbage crop for the early spring market is planted early and removed from the field by the last of June, it is necessary to select a cover crop that can provide growth during the summer and be plowed under in time to prepare the field for early- to mid-March planting. A summer cover crop of sudan grass or fescue sod can be plowed under in the fall for early spring cabbage plantings. The conventional fall cover crops do not usually provide enough growth by January or February when the ground must be prepared to be of much benefit to the crop.

After early cabbage has been harvested, there is still adequate time to grow a fall crop of tomatoes, green snap beans, peppers, turnips and other vegetables with growing seasons of four months or less.

## IRRIGATION

Prolonged dry periods while the cabbage is heading can result in greatly reduced head weight and, in some cases, the cabbage may become unmarketable. Soil types vary in their ability to hold water, and each individual grower must make the ultimate decision as to *whether* he will irrigate, *when*, and *how much*, based on the knowledge of his own soils and the prevailing climatic conditions.

The speed with which water enters the soil will determine how much water should be applied by any method of irrigation. Sandy soils will absorb moisture much faster than will clay soils. The slope of the land also determines the rate of water application.

Overhead sprinkler irrigation is usually the most satisfactory method of watering for most areas of Kentucky. One to 1¼ inches of water should be applied at each irrigation on clay and clay loam soils in order to wet the soil to 12 inches. Sandy soils will require about ½ inch. The slope of the land and the nature of the soil will determine how fast the water should be applied. Clay soils with 5 to 10 percent slope should receive approximately 0.15 inch of water per hour. At this rate of application, approximately 7 hours would be required to apply 1 inch of water. Land that is level, and soils with larger soil particles, will take water much faster; as much as ½ to 1 inch of water per hour.

## PLANT POPULATION

Production averaging 12-15 tons of marketable fresh cabbage per acre will insure a profit to the grower at a 3 cents/lb. market. Yields greater than this can be obtained. Table 6 shows different plant populations at different row and plant spacings. It is suggested that inexperienced growers begin with a plant population of 13,000 to 17,000 per acre. Soil type and rainfall history should be used to determine plant population. As experience is gained in fertilizing, weed control, and other cultural practices, higher plant populations may be desirable. Irrigation will also aide in success with high plant populations.

## WEED CONTROL

The use of herbicides can greatly reduce the amount of labor required to grow a crop of cabbage. Herbicides presently registered for use on cabbage can be applied at a cost to the grower of about \$4.00 per acre. Recommended materials are listed in Extension publication Misc. 373, *Chemical Weed Control for Vegetable Crops*.

If cultivation is used to control weeds, *extreme caution should be taken to insure that cultivation is shallow and does not injure the developing root system.*

**TABLE 6: PLANT POPULATIONS AT DIFFERENT ROW SPACINGS**

Row Spacing	Plant Spacing in Row	Plant Population Per Acre
20"	12"	26,000
24"	12"	21,750
30"	12"	17,400
36"	12"	14,500
20"	14"	22,400
24"	14"	18,600
30"	14"	14,900
36"	14"	12,400
20"	16"	19,600
24"	16"	16,300
30"	16"	13,000
36"	16"	10,800

**PRINCIPLE INSECTS ATTACKING CABBAGE IN KENTUCKY**

Insects can be one of the most critical factors affecting the yield and market quality of cabbage. There are insects that work below ground and others that work above ground. A timely and thorough application of recommended insecticides is needed at weekly intervals and after each rain to control above-ground insects.

An insecticide should be applied to the soil to control insects that cut off the plants or feed on the roots. Insecticides for controlling soil insects may be applied as sprays, in granular form, or in starter solutions. If the insecticide is sprayed on the soil or applied in the granular form, it should be worked well into the top 6 to 8 inches of soil. Dusting cabbage is preferred to spraying. Spray droplets will run off the smooth leaf surface. Dusting should be done in the early morning while the dew is on the foliage. To get the insecticide to the lower sides of the leaves as well as into the center of the plant, a fan-type duster is essential.

For recommended control measures for cabbage insects, refer to Extension publication Misc. 384, *Insect Control of Field and Greenhouse Vegetable Insects*. Growers should be on the alert for the appearance of any insect problem so that proper control methods can be undertaken at once. It is best to prevent a population buildup by following a regular spray or dusting program.

*Cutworms* - There are a number of different cutworm species. Cutworms can reduce plant stands by cutting off young transplants, usually at ground level. If a field has been in weeds or grasses just prior to cabbage, cutworms are likely to be a serious problem unless the field is treated with an insecticide.

*Aphids* (plant lice) - These are small, soft-bodied insects that may appear on cabbage during latter March in Kentucky. Aphids may be either green, pink, or black, and may or may not have wings. They can usually be found just as the cabbage head beings forming, and they cause injury by sucking the sap from the leaves, thereby stunting the plant. Serious damage may result, noticeable by a yellowing and curling of the leaves.

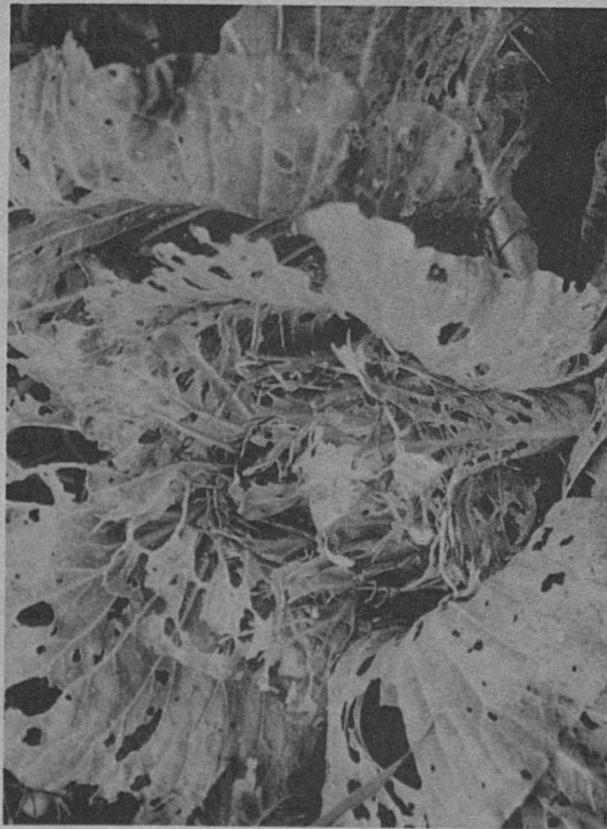
*Flea Beetles* - These are small, brownish-black beetles that jump like fleas. They damage the plant by eating small holes in the tender, developing leaves.

*Cabbage Looper* - This light greenish worm causes severe damage to the leaves. When crawling, it doubles up to form a loop, from which it gets its name. This is one of the most destructive insects for cabbage. The feeding of the very small larva can be detected by the presence of small holes in the leaves. As the worms increase in size, they eat larger holes and bore into the developing head.

*Imported Cabbage Worm* - These caterpillars or worms are velvety-green in color and feed mostly on the under surface of the leaves, eating large irregular holes in the outer leaves of the cabbage heads. Wormy cabbage may be completely rejected in the market place.

If an insect appears to be uncontrollable, contact your county Extension agent, Extension entomology specialist or Extension vegetable specialist for assistance.

**Figure 5: Damage caused by the imported cabbage worm. A good spray program is necessary to keep this pest under control.**



## DISEASE CONTROL

Several diseases can become serious on cabbage. *Club Root* disease produces large swellings on the plant roots and results in poorly developed above-ground parts. The *Yellows* disease can also be a very serious disease of cabbage, but *Yellows*-resistant varieties have helped in reducing losses. *Blackleg* is a disease that attacks the young plant, causing dark, sunken areas on the stem, with the result that the plant wilts and dead leaves adhere to the stem. *Black Rot* disease results in a browning at the edges of the leaves, while black areas may appear on the veins of the leaves.

Most disease problems for cabbage can be prevented by buying a good seed, using resistant varieties (see Table 1), treating the seed, sterilizing the beds in which plants are grown before they go to the field, and by following a good crop rotation program.

For recommended control measures for cabbage diseases refer to Extension publication Misc. 374, *Disease Control Recommendations for Vegetable Crops*.

If disease problems arise, contact your county Extension agent, Extension plant pathology specialist, or Extension vegetable specialist for control recommendations.

## OTHER PROBLEMS

Premature seeding and bursting of heads can be a problem. Premature seeding ("bolting") can result from the exposure of cabbage plants to several days of cold temperatures in the 30 to 40°F range. Research has shown that plants with stems over ½ inch in diameter are most likely to bolt when exposed to cool temperatures.

Head bursting increases when very wet periods follow very dry periods, when cultivator root pruning is used, or when excess nitrogen is applied after the head is matured.

An irrigation unit can be good insurance against excessive head bursting. Supplemental water helps the grower have a more uniform soil moisture level.

## HARVESTING AND GRADING

Harvest time is usually determined by the solidness of the cabbage heads, although other factors, such as the market price, weather, size and appearance, may determine whether the crop is harvested before full maturity. Cabbage should be harvested before it becomes over-mature. Over-maturity is usually characterized by a white cast on the outer leaves of the heads, bursting, and sunburn.

Although mechanical harvesting of cabbage is becoming a reality, most cabbage is harvested by hand, workers cutting the head from the

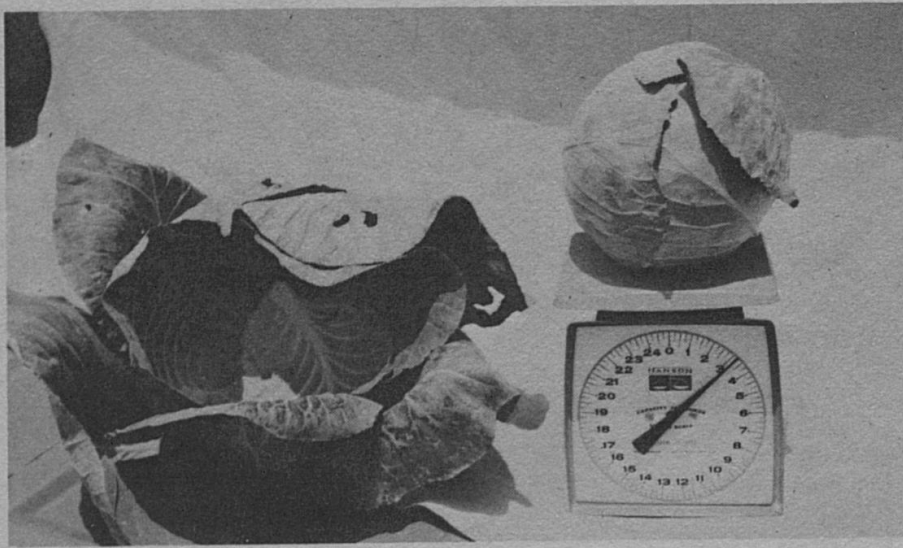


Figure 6A

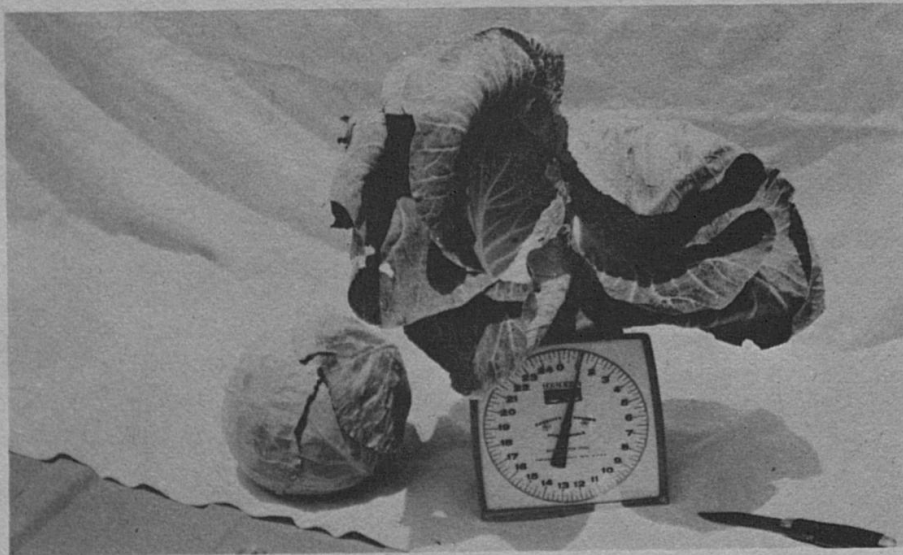


Figure 6B

stem with a knife. Cabbage should be harvested with 3 to 4 green wrapper leaves. This requires leaving about  $\frac{1}{2}$  inch basal plate below the solid portion of the head when cutting from the stem. A properly trimmed cabbage is shown in Figure 6a. Produce buyers insist on properly trimmed cabbage (3 or 4 wrapper leaves), because excess leaves weigh approximately  $\frac{1}{2}$  to 1 pound per head (Figure 6b). These leaves are not saleable in stores and must be removed before the cabbage is placed on display in retail stores. Consequently, improperly trimmed cabbage is discounted by buyers.



Cabbage is commonly cut and placed in mesh bags or wooden wire-bound crates designed to hold 40 to 50 pounds each. (Figure 7.)\*



Figure 7

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\*Weights less than 50 pounds suggest to the buyer that the heads may be soft or immature. Such weights must be designated on each package.

Three to four pound heads are preferred by most fresh market outlets. For cabbage to meet the U.S. No. 1 grade, all heads must be of the same variety or have similar varietal characteristics, be reasonably solid and not be withered, puffy or cracked. The heads must be free from soft rot, seed stems, discoloration, freezing injury, disease, insects and insect feeding damage, and mechanical damage. Stems must be cut so that they do not extend more than ½ inch beyond the point of attachment of the outermost leaves. Not more than 10% by weight of the heads in any lot may fail to meet the requirements of this grade.

*United States Standards for Cabbage* is a publication available in leaflet form from the U.S. Department of Agriculture Consumer and Marketing Service, Washington, D.C., or from your Kentucky Extension Service.

Since cabbage will not all mature at the same time, it will be necessary to go over the field more than one time to complete the harvesting. In order to be most efficient in the harvest operation, it is usually best to cut the heads and place them in a trailer and haul them to a barn where they can be graded and packaged for shipping. *It is essential that no bruising occur from throwing the heads when handling.*

### CABBAGE MARKETS

Cabbage prices fluctuate widely between years and seasons. However, over the years, seasonal fluctuations have tended to follow a very definite pattern. This pattern is illustrated in the weekly average prices in the Cincinnati market from 1940 to 1970 (see Table 7).

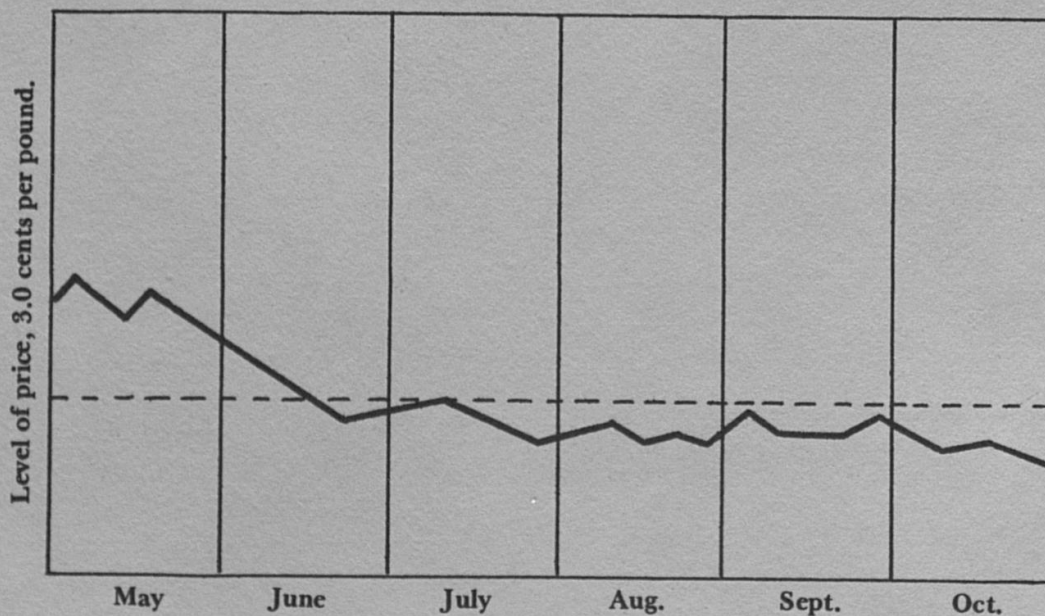


TABLE 7: WEEKLY AVERAGE OF WHOLESALE MARKET PRICES, CINCINNATI, 1940-70

Price patterns have further tended to be the same in all midwest markets. Prices are most favorable in the May and early June period. Prices usually fall about 25% from the May peak to the characteristic mid-June drop. *Therefore, it is important that cabbage be marketed as early as possible.*

Price levels fluctuate widely between years, making it difficult to estimate the potential income that will be realized in any particular year. There are occasional general plant shortages or severe weather conditions that greatly reduce the market supply of cabbage. These result in very high prices. The wholesale market prices in 1970-71 were from 2 to 3 times as great as the long term average price because of plant shortages. It may be wise to note here that there is a tendency for a year with high market prices to be followed by increased plantings and lower prices in the next year.

Cabbage, like other fresh produce, has no Federal program supporting its price. As a result, it is advisable for the grower to make marketing arrangements for his crop before it is produced. Possible outlets are wholesale market buyers located at Louisville Produce Terminal and in Cincinnati, and the Cumberland Farm Products Fresh Market Vegetable Cooperative in Monticello, Kentucky.

2685 C

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