

Disease Control

Disease	Product & Cultural Control	Application Rate
Black Rot	Coback, Rhizolex	10 - 30 grams in 4.5 L water
	Banrot Serenade	water 15 - 30 ml in 4.5 L water
	Crop rotation. Planting disease-free seed and seed that have been treated to eliminate seed-borne bacteria.	
Fusarium Yellow	Coback	15 - 30 grams in 4.5 L water
	Carbendazim	10 ml in 4.5 L water
	Serenade	15 - 30 mls in 4.5 L water
	Use resistant varieties. Crop rotation - will avoid crop loss.	
Alternaria Leaf Spot	Coback	15 - 30 grams in 4.5 L water
	Carbendazim	10 ml in 4.5 L water
	Serenade	15 - 30 ml in 4.5 L water
	Use resistant varieties Hot water treatment will rid the seed of this organism.	
Soft Rot	Coback, Rizolex and Banrot	10 – 30 grams in 4.5 L water
	Crop rotation. Plant on raised beds in well-drained soil to prevent field infections.	
Cabbage Mosaic Virus	Karate	1.5 ml in 4.5 L water
	Regent/frip/flip	2.5 ml in 4.5 L water
	Agree	3.5 grams in 4.5 L water
	Keeping fields and surrounding areas free of weed hosts will help reduce the disease.	

1 gallon is equivalent to 4.5 L

Harvest & Post-Harvest Care

Harvest maturity for cabbages is based on head compactness and firmness to the touch. A compact head can only be slightly compressed with moderate hand pressure. A very loose head is immature and should not be harvested. Harvest maturity may also be based on arrangement of the wrapper leaves, when they are spread apart and the head is exposed, it is usually mature. A mature cabbage has a well-developed head and good weight and size. Mature cabbages have a longer postharvest life than immature cabbages. Cabbage should be harvested promptly when the heads are firm and mature. Delaying harvest even a few days beyond maturity can result in split heads and increased incidence of field disease, particularly during wet weather.



Harvest Methods

Cabbages are best harvested at the coolest time of the day preferably in the morning when the head is most turgid, by hand, by bending the head (or stalk in the

case of pakchoi) to one side and cutting it with a sharp knife or small machete. Cutting instruments should be cleaned and sharpened frequently to reduce harvesting effort. Heads should not be removed by snapping or twisting, broken stems are more susceptible to decay.

Cabbage should be placed in baskets or well-ventilated harvest containers and taken off the field immediately after harvest.

Estimated Yield

With good management and fair weather, it is expected that one acre of cabbage should produce 14,000 - 20,000 lbs.



Promotion of Regional Opportunities for Produce through Enterprises and Linkages (PROPEL)

The Promotion of Regional Opportunities for Produce through Enterprises and Linkages (PROPEL) project is implemented by World University Service of Canada (WUSC) with the financial support of donors and from the Government of Canada through Global Affairs Canada (GAC).

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Growing Cabbage in Guyana



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Introduction

Cabbage (*Brassica oleracea L*) belongs to the Crucifereae family; it may be used as a cooked vegetable, uncooked as salad or sometimes pickled or preserved by steaming and drying. Nutritionally cabbage is an excellent source of vitamin K, C and B6 also dietary fiber and potassium. The most popular varieties of cabbage grown are the compact single - leaf types. They are: Tropicana, KK Cross, Gianty, Fortuna, Salvation and Resist Crown.

Cultivation Requirements

In “open field” conditions cabbages can be grown on any soil type, but preferably suited to light textured soils (sandy loam, clay loam, etc.) with high organic matter content. A pH of approximately 6.0 - 7.0 is considered suitable since cabbages do not tolerate acidic conditions. When the pH is below 5.5, then limestone should be applied two - four weeks before transplanting.

The growth of cabbage is influenced and in many cases limited by the soil profile. Hard pans, clay pans and generally compacted soil restrict root growth. This reduces nutrient and water uptake, limits plant growth and reduces yields. Cabbage is a shallow rooted crop, however when cultivated in properly prepared soils and in favourable conditions, the roots can grow to a depth of 18 to 24 inches.

Crop Establishment

Cabbage is initially grown in seed beds or seed trays and then transplanted when four - five leaves are present (4 weeks old). Transplanting is best done in the afternoon to reduce transplanting shock. The recommended spacing is 60 cm (2 ft.) between rows and 45 cm (1.5 ft) along rows (approximately 37,000 plants/ha). After transplanting, plants should be irrigated continuously for three days, thereafter, two times per week until head formation. Young seedlings require shade from excessive sun.

Fertilizing

When cultivating cabbages a soil test should be done to determine the fertilizer application requirements of the soil. In the absence of such a test, the following recommendation may be used as a guide:

- Urea - 220 kg/ha - 40% at transplanting (2.4 g/plant) - 60% at head formation (3.6 g/plant)
- TSP - 90 kg/ha - all at transplanting (2.4g/plant)
- MoP- 140 kg/ha - 50% at transplanting (1.9 g/plant) - 50% at head formation (1.9 g/plant)



Weed Control

Sedges, such as nut grass, and true grasses are best controlled by spraying with a glyphosate (e.g. Round-up) immediately after harvesting and 10 - 14 days before planting of the next crop. For the pre-emergent control of broad-leaved weeds, such as Hog Bhagee, the herbicide Ronstar (or AgroStar) should be applied at the rate of 15 ml per 2.5 gallons of water, sprayed just after planting. For the pre-emergent control of grasses, apply Dual Gold 960EC at the rate of 35 ml in 4.5 litres of water, and spray on the surface of the wetted soil.

Insect Pest Control

The most common insect pests are: Crickets, White Flies, Cutworm, Bud Worm, Diamond Back Moth and Cabbage Butterfly. Insecticides should only be applied when the damage is significant, keeping in mind that cabbages are vegetables which easily retain chemical residues. The table below indicates the products that can be used for the control of these pests, their mixing rates and the pre-harvest intervals.

Insecticides for control of the same pest should be rotated to avoid resistance build-up.

Pest	Insecticide	Application Rate	Pre-Harvest Interval
Cutworm	Diazinon or Vydate L	10 - 20 ml in 4.5 L of water	7 - 14 days
	Cultivation area should receive full sunlight. Good field sanitation		
Cricket	Diazinon or Vydate L	10 ml in 4.5 L of water	7 - 14 days
	Cultivation area should receive full sunlight. Good field sanitation		
White Flies	Admire, Abamectin, Vydate L	5 - 10 ml in 4.5 L water	5 - 14 days
	Do not cultivate new field next to mature fields and practice good farm sanitation.		
Bud Worm	Karate/Karatax	1.5 ml in 4.5 L water	3 - 5 days
	Dipel	3.5 grams in 4.5 L water	
	Regent	2.5 ml in 4.5 L water	
	Crop rotation		
Diamond Back Moth	Karate/Karatax	1.5 ml in 4.5 L water	3 - 5 days
	Pirate	3.5 grams in 4.5 L water	
	Phoenix	3.5 grams in 4.5 L water	
	Alverde	2.5 ml in 4.5 L water	
Crop rotation Field sanitation			
Cabbage Butterfly Army worm & Semi looper	Karate	1.5 ml in 4.5 L water	3 - 5 days
	Dipel	3.5 grams in 4.5 L water	
	Agree	3.5 grams in 4.5 L water	
	Regent/Frip/Flip	2.5 ml in 4.5 L water	
Crop rotation Field sanitation			

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