

# Escarole



Escarole is part of the Asteraceae or dandelion family along with endive, chicory, and radicchio. Originating in the Mediterranean region, this leafy green is a type of endive (*Cichorium endive* or broad-leaf endive) with dark green, flat, less crinkly leaves around a loose yet balanced head.

## SEASONAL AVAILABILITY

LOCATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ARIZONA	●	●	●									●
CALIFORNIA	●	●	●	●	●	●	●	●	●	●	●	
FLORIDA	●	●	●	●	●					●	●	
MARYLAND					●	●	●					
NEW JERSEY									●	●	●	
TEXAS												●
WASHINGTON					●	●	●	●	●	●	●	●
CANADA						●	●	●	●	●		

References: Agriculture & Agri-Food Canada, University of Florida/IFAS Extension, USDA, Washington State Dept. of Agriculture.

## TYPES, VARIETIES & CUTS

Though the terms escarole, endive, and chicory are often used interchangeably, there are differences in both appearance and flavor (escarole tends to be less bitter). Varieties of escarole include Broadleaf Batavian, Full Heart, Salanca, and Twinkle.

Curly endive, also called frisée, generally has smaller, slender 'frizzy'-looking yellow-green leaves. Neither should be confused with Belgian or French endive, with pale, smooth, oval-shaped leaves.

*References: Rutgers University New Jersey Agricultural Experiment Station, University of Florida/IFAS Extension, University of Massachusetts Amherst, USDA.*

## PESTS & DISEASE

### Common Diseases:

*Mosaic viruses* infect plants, which then become reservoirs of the disease, stunting growth. *Cucumber, lettuce, and turnip mosaic virus* are similar in nature, though the latter is more prevalent in escarole. Ironically, *turnip mosaic virus* was inadvertently transferred to some escarole varieties while breeders were building resistance to *downy mildew*. Symptoms include slowed development, lack of coloring (chlorosis), tears and crimping in leaves, and eventually plant death.

*Beet western yellows virus* has an impact in California, Arizona, and Florida. It causes a pronounced chlorosis of the outer leaves of lettuce and escarole.

Other diseases of note include *bacterial blight, bottom rot, damping off, downy or powdery mildew, Fusarium, grey or white mold, tip burn, wilt, and yellowing*.

### Common Pests:

Escarole and its lettuce siblings are vulnerable to a number of pests including *aphids, armyworms, beetles, cabbage loopers, cutworms, fire ants, leafhoppers, leafminers, lygus (tarnished plant) bugs, slugs, stink bugs, thrips, and whiteflies*.

*References: Rutgers University New Jersey Agricultural Experiment Station, University of Florida/IFAS Extension, University of Massachusetts Amherst, USDA.*

## CULTIVATION, STORAGE & PACKAGING

Escarole is a cool season crop with a stronger flavor than most of its lettuce siblings. It grows best with plenty of sunshine and consistent moisture in well-drained soil. Soil should have adequate calcium and a pH balance of 5.5 to 6.5 and no higher than 6.8 for optimal plant health.

Plastic mulch can help reduce soil temperatures in warmer climates, prevent weeds, and retain moisture (a lack of moisture can cause bitterness). Plants should have ample space, with about a foot between them, as over-crowding (and high temperatures) can lead to bolting.

Escarole leaves are delicate and should be cooled after harvest with high relative humidity (95 to 100%). They are, however, susceptible to freezing injury if stored below 32°F for any period of time. Although a low producer of ethylene, exposure to higher levels can cause yellowing.

### Grades:

There is only one grade for escarole, endive, or chicory: U.S. No. 1. Plants should have similar varietal characteristics with fresh, well-trimmed and fairly well blanched leaves, free from decay and damage. There should be no broken, bruised, spotted, or discolored leaves, or evidence of wilt, dirt, disease, or insects.

*References: Rutgers University New Jersey Agricultural Experiment Station, University of Florida/IFAS Extension, University of Massachusetts Amherst, USDA.*

### GOOD ARRIVAL GUIDELINES

Generally speaking, the percentage of defects shown on a timely government inspection certificate should not exceed the percentage of allowable defects, provided: (1) transportation conditions were normal; (2) the U.S. Department of Agriculture (USDA) or Canadian Food Inspection Agency (CFIA) inspection was timely; and (3) the entire lot was inspected.

U.S. Grade Standards	Days Since Shipment	% of Defects Allowed	Optimum Transit Temp. (°F)
10-5-2	5	15-8-4	32
	4	14-8-4	
	3	13-7-3	
	2	12-6-2	
	1	10-5-2	

There are no good arrival guidelines for this commodity specific to Canada; U.S. guidelines apply to shipments unless otherwise agreed by contract.

References: DRC, PACA, USDA.

### ESCAROLE: WEEKLY MOVEMENTS & PRICES, USA

