



# AGRONOMIC SPOTLIGHT



## MELON TYPES

- » In the U.S., the terms “cantaloupe” and “muskmelon” refer to fruits of plants classified as *Cucumis melo* var. *reticulatus*.
- » Western shipper types, eastern types, and Tuscan types of melons differ in their size, shape, and structure of their rinds.
- » The designations ESL and LSL refer to varieties that have longer shelf lives than traditional melon varieties.

Retailers and consumers in the United States often use the terms “cantaloupe” and “muskmelon” to differentiate the smaller, spherical types of melons from the larger, sutured (ribbed) melons. Sometimes people use these terms interchangeably to refer to any melon with orange, aromatic flesh and straw-colored rinds, or call all of these melons cantaloupes.



Figure 1. A western shipper variety of melon.

Melons are members of the cucurbit family (Cucurbitaceae) and belong to the species *Cucumis melo*. The “cantaloupe”, “muskmelon”, and galia type melons commonly grown in the U.S. are classified as *Cucumis melo* var. *reticulatus*. This group of melons typically have netted rinds and aromatic flesh. Honeydew, golden honeydew, casaba, and crenshaw melons are classified as *Cucumis melo* var. *inodorous*.<sup>1</sup>

There are several types of what U.S. consumers call cantaloupe or muskmelon in the *Cucumis melo* var. *reticulatus* group. These include western shipping types (western shippers), eastern shipper types, and Tuscan types. Varieties are also distinguished by the length of their shelf life, traditional shelf life (TSL), extended shelf life (ESL), and long shelf life (LSL) varieties.<sup>2</sup>

### WESTERN SHIPPING VARIETIES

The western shipping varieties of melons are what many U.S. consumers would consider as a standard cantaloupe. As the name implies, western shippers were once grown primarily in the western states. However, these types of melons are now grown in many regions of the U.S.<sup>2</sup> Traditional western shipper melons are spherical with rinds that are heavily and uniformly netted (Figure 1). These melons have no visible sutures (grooves) or very shallow sutures. They have orange flesh and small seed cavities. The melons usually do not have any stem parts attached after harvest, and the target weight is 2 to 4 pounds.

### EASTERN SHIPPING VARIETIES

Eastern shipping varieties of melons are often referred to as “muskmelons” by consumers and retailers to distinguish them from the “cantaloupe” types. These melons are usually larger (5 to 8 pounds) and less uniform in shape (round to oval) than the western shippers (Figure 2). The rinds of eastern melon varieties may have less pronounced and less uniform netting, and these melons usually have deep sutures. The flesh is orange- to salmon-colored, and the melons typically have larger seed cavities than fruit of the western shipper varieties. Eastern varieties of melons are usually not suitable for long-distance shipping.<sup>1,2</sup>



Figure 2. An eastern or “muskmelon” variety of melon with sutures.

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## TUSCAN VARIETIES

Tuscan varieties of melons have rinds that are straw-colored and roughly netted, and they have small seed cavities like western shipper types. However, these melons have deep sutures like the eastern, muskmelon types (Figure 3). The sutures are gray-green on non-mature fruit, become deep-green on mature fruit, and then lighten to light-green or yellow as the fruit ripens.



Figure 3. A Tuscan (Italian) variety of melon.

## LONG SHELF LIFE VARIETIES

The western shipper, eastern shipper, and Tuscan types of melons are TSL varieties with a shelf life of 5 to 7 days. The majority of cantaloupe type melons grown today are ESL and LSL varieties that have been developed from the western shipper types. These varieties have many of the characteristics of the western shippers, but they are distinguished from traditional varieties by holding their soluble solids content (average degrees brix) in the field, during shipping, and in the market for a longer time (Table 1).<sup>1</sup>

Many of the LSL varieties are “no-slip”, meaning that the stem does not detach from the fruit at maturity. Harvesting these fruit is a little more difficult than the fruit of traditional varieties



Figure 4. No-slip melons need to be cut or clipped from the vine at harvest. A small amount of stem remains attached to the fruit.

that slip off of the vine with a slight pull at maturity. These LSL varieties have to be cut off of the vines at harvest, and a small amount of stem is left on the fruit (Figure 4). The difficulty of correctly harvesting the nonslip, LSL melons can affect the quality of the product on the store shelf.

Because these varieties hold their soluble solids content without degrading for a longer time, fewer numbers of harvests are needed as compared to the eastern and western types of melons. Fields of traditional melons are typically harvested 8 to 10 times, while fields of ESL and LSL melons may only require 2 to 4 harvests.

The flavor characteristics of the initial ESL and LSL varieties have not matched the quality of the traditional melons. However, the flavor profiles of newer varieties are getting closer to those of the traditional melons.

### Sources:

<sup>1</sup> Oregon Vegetables. 2010. Melons: cantaloupe, muskmelon, honeydew, crenshaw, casaba, etc. Oregon State University.

<https://horticulture.oregonstate.edu/oregon-vegetables/melons-cantaloupe-muskmelon-honeydew-crenshaw-casaba-etc-0>.

<sup>2</sup> 2017. Cantaloupe and specialty melons. University of Georgia Extension. Bulletin 1179. Websites verified 4/7/2020

**Table 1. Melon variety designations based on shelf life.**

TSL	Traditional Shelf Life	Distinct skin color change, aroma present, crop is picked at full slip. Shelf life is 5 to 7 days before symptoms of spoilage.
ESL	Extended Shelf Life	Some skin color change, some aroma, can be cut at harvest or picked at force slip. Shelf life is approximately 17 to 21 days.
LSL	Long Shelf Life	Some skin color change, no aroma, harvested cut, shelf life is in excess of 4 weeks.

**For additional agronomic information, please contact your local seed representative.**

**Performance may vary** from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields. The recommendations in this article are based upon information obtained from the cited sources and should be used as a quick reference for information about melon production. The content of this article should not be substituted for the professional opinion of a producer, grower, agronomist, pathologist and similar professional dealing with this specific crop.

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