

Vein Tracts, Not Sutures, in Cantaloupe¹

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The term "vein tract" is better than "suture" to denote the longitudinal indentations or unnetted strips which sometimes characterize the outward appearance of fruits of *Cucumis melo* L., *reticulatus* Naud. The term "suture" has a botanical ring in comparison to "grooves" or "stripes," and I confess to having used it as much as anybody. Unfortunately, "suture" is here applied incorrectly; thus it is misleading to one who may be considering physiological explanations for unexplained variations in this surface feature.

Rosa (7) used "sutures" to designate the surface indentations on melons, assuming that they indicate seams where the margins of petals and sepals have joined in the ontogeny or phylogeny of epigynous flowers. Often, with reference to the ovary or fruit, a suture designates the seam where carpels join (2, 4). Neither usage is appropriate here (5, 6). Upon inspection these indented or unnetted tracts are associated with and lie over large vascular bundles, of which there normally are ten in cantaloupes. The morphological and physiological connotations of this relationship are quite distinct from an association with sutures.

"Vein tract" was coined with the help of A. R. Spurr, of this department (Vegetable Crops) and has been used in a mimeographed report (3). The

epidermal tissue of vein tracts differs from adjoining epidermal tissue (1). Vein tracts, in essence, exist even in the absence of indentation or lack of netting, so we may speak of indented or non-indented vein tracts and netted or unnetted vein tracts (Fig. 1). The term "vein tract" may be applied correctly also to the indented tracts in pumpkins and scallop squashes, and to the light colored tracts on striped watermelons.

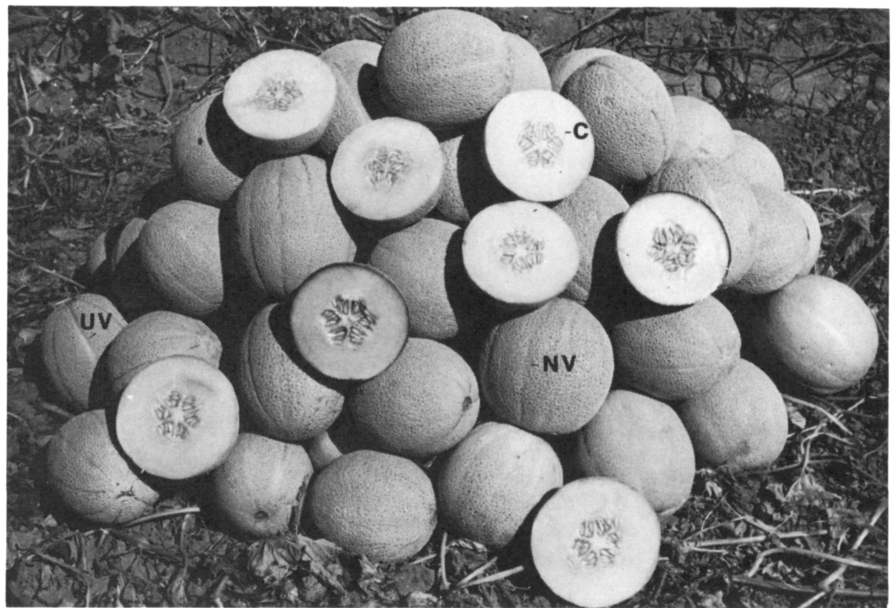


Fig. 1. 'PMR 45' cantaloupe showing mesocarp formed by 3 coalescent carpels (C), netted vein tract (NV), and unnetted vein tract (UV).

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Muskmelon vs. Cantaloupe¹

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The common name for botanical varieties and cultivars of *Cucumis melo* L. is muskmelon. This term includes those forms with both edible and inedible fruits. In the United States the word "cantaloupe" has been applied to cultivars belonging to *C. melo* var. *reticulatus* Naud. The fruits of var. *reticulatus* are medium in size, the surface is netted, and has shallow vein tracts. The flesh is usually salmon colored, but it may vary from green to deep salmon-orange. The vines usually bear andromonoecious flowers, and the

fruit generally separates from the stem when mature (slips). Most cultivars grown for commercial purposes in this country belong to *C. melo* var. *reticulatus*. The name "cantaloupe" has become firmly imbedded in American culture to indicate these medium-sized, netted melons found in season on shelves of nearly every grocery store and supermarket in the country. For this reason, little can be done to correct its usage except to point out that "cantaloupe" is a misnomer.

The word "cantaloupe" should be applied to cultivars of *C. melo* var. *cantalupensis* Naud. The fruits of this group are rough, scaly, with deep vein tracts and a hard rind. Cultivars of var. *cantalupensis* are grown in Europe and Asia but they are seldom grown in the U. S. except perhaps as a novelty. The

name "cantalupensis" comes from a former papal estate near Rome, Cantalupo, where these muskmelons were cultivated at an early date, apparently from seed received from Asia Minor.

The winter melons, *Cucumis melo* var. *inodorus* Naud., are another important group of muskmelons. Generally the fruits of this group take longer to mature and have better keeping qualities than the so-called cantaloupes. The vines are usually monoecious, are more coarse, more vigorous, and have larger leaves than cantaloupes. The fruit does not abscise from the stem at maturity. Honey Dew and Casaba are in this category. Honey Dew fruits have smooth, white skin, while Casaba fruits have solid yellow, dark green turning yellow at maturity, or mottled green and white skin. The skin of the Casaba is corrugated, rough, and wrinkled, but not netted. The cultivars 'Golden Beauty', 'Crenshaw' and 'Santa Claus' are the most widely grown of the casaba type.

¹ Cantaloupe is a word with a questionable past. As a result of a controversy over the title of the previous article by R. M. Davis, Jr., this authoritative statement was requested. (Editor)

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