

Cultivars Suitable for Watermelon Rind Pickles

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Watermelon [*Citrullus lanatus* (Thunb.) Matsum. & Nakai] is a major vegetable crop in the U.S., with an average production (1998 to 2003) of about 1.8 million Mg·year⁻¹, an average of 75,000 hectares planted (89% harvested), and a yield of 26.4 Mg·ha⁻¹. The market value has been stable in the last five years, with an average total value of 280 million dollars (3).

Minor uses of watermelon fruit include edible seeds and watermelon rind pickles. Home gardeners and small industries make rind pickles from the leftover watermelon crop, especially from cultivars having thick and crisp rind. Recently, Simonne et al. (2) compared traditional recipes for watermelon rind pickles for their efficacy, food safety, and quality. We have been getting questions about suitable cultivars for rind pickles from home gardeners, perhaps indicating increased interest.

The watermelon fruit consists of the exocarp, mesocarp, and endocarp. The endocarp is the seed-containing part that is consumed as food, and the mesocarp and exocarp are usually referred to as the rind. The rind is used for making pickles after removing the thin exocarp, leaving the crisp, white mesocarp.

Some old or obsolete cultivars were discontinued from use in the market because of their thick rind, so they would be obvious candidates for use in making watermelon pickles. Some of those old cultivars are still used by home gardeners and heirloom collectors (1), and seeds are available from seed companies. 'Tom Watson', 'Georgia Rattlesnake', and 'Black Diamond' are three heirloom cultivars with good flavor, attractive rind pattern and color, and thick rind. The objective of this study was to

determine the rind thickness of old watermelon cultivars, for use in making pickles.

Methods: Cultivars were chosen with thick rind and then classified by cultivar type (size and shape), and flesh color (red and orange). Trials were run in 2001 and 2002 at the Horticultural Research Station in Clinton, NC and at the Field Crops Research Station in Kinston, NC. The trial was a randomized complete block experiment with two years, two locations, and two or four replications per year and location. Eighty obsolete cultivars and adapted checks were included in the trials. Rows were covered with black polyethylene mulch (0.03 mm) at Kinston. No mulch was used at Clinton. Plots were overhead irrigated at Clinton and drip irrigated at Kinston. Individual rows of each plot were 7.3 m long, on 3.0 m centers with 0.6 m between hills, and 2.4 m alleys at each end of the plot.

Results: Cultivars having thick rind included Carolina Cross #183, Cobbs Gem, Florida Favorite, Garrisonian, Malali, Moon & Stars, Navajo Sweet, Smokylee, Stone Mountain, Tendersweet Orange Flesh, Tom Watson, and Weeks NC Giant (Table 1).

In response to requests for favorite recipes for pickles, we have given one here, courtesy of Mrs. R.B. Edwards (Table 2). With the increased use of watermelons to produce ready-to-eat chunks in containers, there will be a large supply of rinds in the cutting area. Those industries may be candidates for increased production of rind pickles in the future.

Table 1. Cultivars for watermelon rind pickles.

Thin Rind (less than 15 mm)

Allsweet, Cream of Saskatchewan, Crimson Sweet, Early Arizona, Early Canada, Golden Midget, Mickylee, New Hampshire Midget, Petite Sweet, Sweetheart, Sugar Baby, Yellow Doll

Medium Rind (15 to 19 mm)

Calhoun Gray, Charleston Gray, Dixielee, Fairfax, Georgia Rattlesnake, Mardi Gras, Mountain Hosier, Regency, Sun Gold, Tendergold, Tastigold

Thick Rind (greater than 19 mm)

Carolina Cross #183, Cobbs Gem, Florida Favorite, Garrisonian, Malali, Moon & Stars, Navajo Sweet, Smokylee, Stone Mountain, Tendersweet Orange Flesh, Tom Watson, Weeks NC Giant

Table 2. Traditional recipe for watermelon rind pickles from the Southeastern U.S. (Mrs. R.B. Edwards, Siler City, NC).

Ingredients:

4 pounds of watermelon rind without green skin and cut in 1/2"*1/2" cubes
1 gallon of cold water

2 tablespoons of favorite pickling spices (tied in a cheesecloth bag)
3 pints of vinegar
3 pounds of sugar (1 brown : 1 white)
3 tablespoons of alum

Instructions:

1. In the evening, dissolve alum in cold water
2. Add the rind cubes and let stand over night
3. In the morning exchange old for fresh water and let stand for 3 more hours
4. Cook until the rind cubes become tender, then add all other ingredients and boil gently until the rind cubes are clear
5. Remove the spice bag, pack in jars with the hot juice over the rind cubes
6. Seal and sterilize the jars by boiling them

Literature cited

1. Goldman, A. 2002. Melons for the passionate grower. 1st ed: Harper Collins. 176 pp.
2. Simonne, A., M. Carter, R. Fellers, J. Weese, C. Wei, E. Simonne, and M. E. Miller. 2003. Chemical, physical and sensory characterization of watermelon rind pickles. Journal of Food Processing and Preservation 26(6):415-432.
3. USDA-ARS. Agricultural statistics data base - QuickSTAT (visited/last modified 10/28/2003)
<http://www.nass.usda.gov:81/ipedb/>.