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Starch granules from 33 cultivars of yams belonging to species *Dioscorea alata*, *D. esculenta*, *D. bulbifera*, *D. obouneta*, *D. rotundata* and unclassified cultivar from Puerto Rico were examined for their size, shape and striations.

Cultivars belonging to *D. alata* ("Angili-ala", "Raja-ala", "Sudu Raja-ala", "Kahata-ala", "Hingurala", "Kahata angala", "Kiri Kondol", "Kiri-ala", "Ini-ala", "Ley-danta", "King yan", "Dandila", "Rata-ala", "Ratu-ala", "Wal-ala", "Rata Hingurala" and "Raja Hingurala") except "Kirikndol" and "Raja-ala" were characterized by large ovoid starch granules of size (8-54 μ) *D. esculenta* cultivars ("Kukulala", "Jawala" and "Siruwalli" had clusters of small (2-8 μ) hexagonal granules. *D. bulbifera* (Udala) had sickle shaped or triangular granules with sharp corners. White flesh variety of "Combuwalli" showed similar granules but the purple flesh variety contained granules similar to *D. alata*, *D. obouneta* ("Hirithala" and "Jamburala") contained oval granules whereas *D. rotundata* ("Urumpirei", "Thambala" and "Motakewalli") were characterized by triangular granules with distinct striations.

Other shapes of granules were observed in the aerial yams "Kiri-udala" (oval with sharp pointed end), "Kiri-kondol" (polygonal to circular) and Puerto Rice yam (triangular with blunt apices).

The classification of *Dioscorea* spp at present, is based on the morphological characters of the plant and the yams. The information on starch granules support the present classification and could be used in the identification of the cultivars. It may also be a useful basis for classification of hitherto unclassified cultivars (and in re-examining the present classification).

Reference

- 1 de Fonseka, R.N. and Vinasathanby, S. A provisional index to the local names of flowering plants of Ceylon. Dept. of Botany, University of Peradeniya