

**Midzushima** (P.I. 32562): Medium-to-large size with orange-yellow skin. Roundish-oblate in shape. Flesh is yellow, heavily speckled with brown, giving an overall reddish-brown appearance. Non-astringent when seeded; fair-to-good quality. Ripens early November.

**O Goshō** (P.I. 78487): Medium-sized, conical-to-oblate fruit with thick, tough, orange-yellow skin. Flesh is light yellow with brown flecks, non-astringent with fair-to-good quality. One or more seeds usually present. Ripens mid-November.

**Shakumi** (P.I. 13846): Large, roundish-oblate, with dull reddish-orange skin. Flesh is non-astringent when seeded, and contains many brown specks, giving a dark orange appearance. Quality is fair-to-good. Ripens mid-November.

**Shogatsu** (P.I. 78501): Large, oblate, conical shaped fruit with orange-yellow skin. Outer layer of flesh is orange-yellow, with slight astringency. Flesh in area of seeds contains many brown specks and is non-astringent. Overall quality is fair-to-

good. Ripens early December.

**Square** (P.I. 91184): Small-to-medium size, oblate shaped fruit having reddish-orange skin. The flesh is orange, astringent until soft-ripe, and poor in quality. The fruit usually contains seeds and ripens in mid-November.

**Tamopan** (P.I. 236143): Large size with distinctive shape, having a constriction about one-third the way down on the fruit. Skin color light orange; astringent until soft-ripe. Ripens in November.

**Twentieth Century** (P.I. 72960): Medium-to-small size. Oblate in shape, quadrangular in cross section. Skin is orange-yellow. Flesh is orange with dark specks, non-astringent with fair-to-good quality. Ripens mid-November. This variety is almost identical to Fuyū.

**Yokong** (P.I. 91638): Medium-to-large size, roundish-oblate, with reddish-orange skin color. Flesh is reddish-orange, astringent until soft-ripe, and seeded in some seasons. Quality fair-to-good. Has good size, shape, and color. Ripens early November.

## Fruit Breeding at John Innes Institute

The John Innes Institute, Norwich, England, has been breeding to improve fruits since 1910. A. G. Brown recently reviewed the fruit improvement efforts of the Institute in the *Journal of the Royal Horticultural Society*. Some of the significant points which he reports are as follows:

**Apple:** For a long time, the emphasis has been on developing varieties with resistance to scab and mildew. The newest introduction is 'Merton Joy,' an attractive, productive apple of Sept.-Oct. season, and almost completely free from mildew. 'Merton Ace' has just been named, an early, well colored variety which is

not yet available.

**Plum:** Efforts are being made to develop high quality plums that are self-fertile. Such a variety, named 'Merton Gem,' will soon be released. It is a light, golden yellow plum with a bright red blush.

**Cherry:** Objectives in breeding are resistance to bacterial canker, self-fertility, and dwarfing rootstock. The newest introductions are 'Merton Late,' which ripens in early September, and the variety, 'Merton Crane.'

**Strawberry:** Efforts are being made to develop varieties suitable for canning, ones with dark flesh for yogourt, and others for mechanical harvesting. The newest variety, still not released, is 'Merton Ruby,' a late, mid-season, productive variety.