'Oregon Sugarpod' Pea

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'Oregon Sugarpod' edible-pod pea (Pisum sativum L.), was released by the Oregon Agricultural Experiment Station in 1971. Initially developed for areas of the Pacific Northwest where enation mosaic virus is a problem, this cultivar appears to be finding wider acceptance because it bears large pods comparable to those of 'Mammoth Melting Sugar' but on a dwarf plant similar to the 'Perfection' types. In this respect, it may be unique among American cultivars.

Origin

' Oregon Sugarpod' pea (formerly OSU S 158-1), was derived from the cross OSU 102 x 'Dwarf Gray Sugar' made in 1960. In the pedigree (Fig. 1), P601 was an enation mosaic susceptible breeding line of freezing type obtained from M. C. Parker, Gallatin Valley Seed Co., Geneva 168, a selection from PI 1402952, (New York Agr. Expt. Sta., Geneva, NY) was the initial source of resistance to enation mosaic virus. 'Wando' is a susceptible commercial cultivar.

OSU S158-1 was carried as a massed line following pedigree selection from 1960 to 1966.

Description

' Oregon Sugarpod' has a relatively short and sturdy plant resembling 'Dark Skin Perfection', rather than the tall, lax plant of most edible-pod cultivars. Height varies from 36 cm (14 inches or less to perhaps 76 cm (30 inches). The stem is zigzag; the leaves and stipules are moderately large.

No. of nodes to first bloom varies from 13 to 16. No. of days from planting to edible-pod maturity at Corvallis, when planted in late May or early June, varies from 55 to 60 days. Under good conditions pods are borne in pairs at several to many nodes per plant.

The pods are commonly 12.7 cm (4 inch) long x 2.2 cm (7/8 inch) wide, and are relatively smooth (Fig. 2). Strings and traces of sidewall fiber which appear after the seed have developed are comparable to those of most edible-pod cultivars. The flavor is mild and general quality is good. Shelled immature seeds are light in color and are not of sufficient quality for table use.

The seeds are medium large, about 3086/kg (1400/lb.), and only slightly wrinkled or dimpled. No unusual germination problems have been observed. 'Oregon Sugarpod' has excellent resistance to enation mosaic virus. It is resistant to common Fusarium pea wilt caused by F. oxysporum f. pisi (Linford) race 1 Snyder & Hansen, susceptible to Fusarium near-wilt caused by F. oxysporum f. pisi (Linford) race 2 Snyder & Hansen, and susceptible to powdery mildew caused by Erysiphe polygoni DC.

In replicated yield trials at 3 Oregon locations in 1970, 'Oregon Sugarpod' yielded about 7 times as much as a commercial cultivar 'Dwarf White Sugar', which was infected by enation mosaic. Trials made in the Midwest in the absence of virus infection indicate 'Oregon Sugarpod' yields comparably with 'Dwarf White Sugar', 'Dwarf Gray Sugar', and 'Mammoth Melting Sugar'.

Availability

' Oregon Sugarpod' is available from several catalog outlets and has been increased in quantity by various pea seed production specialists. Limited amounts of stock seed, and information on sources of larger quantities are available from the author.

Fig. 1. Pedigree of 'Oregon Sugarpod' pea.

Fig. 2. 'Oregon Sugarpod' pea.

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2Originally provided by the U.S. Plant Introduction Service.