New Ornamental *Capsicum* Germplasm: Lines 90C40, 90C44, and 90C53

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Ornamental pepper (*Capsicum annuum* L.) germplasm lines 90C40, 90C44, and 90C53 are being released by the U.S. Dept. of Agriculture (USDA), Agricultural Research Service (ARS), in Beltsville, Md. These lines contain unique combinations of genes for leaf variegation, purple leaf pigmentation, multiple fruit per node, and upright fruit orientation.

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Origin

These lines were derived from single-plant selections originating from a cross of the hot Indian pepper 'KAU Cluster' with a diverse collection of Indian *C. annuum* landraces. The original crosses with 'KAU Cluster' were conducted by T.H. Barksdale (USDA). Several advanced segregants displayed unusual leaf variegation. From these segregants, several uniform breeding lines were developed. Three lines—90C40, 90C44, and 90C53—were selected for release and are derived from bulks of plants in the F₆ generation selected only for ornamental value.

Description

Line 90C40 is a variegated leaf-type ornamental pepper selected primarily for its variegated foliage. Foliage is green (132C) [Royal Horticultural Society (RHS), 1966], purple (82C), and white variegated. Plants are bushy and averaged 38.2 cm in height and 71.2 cm in diameter in 2 years of trials conducted at Beltsville. Plants bear many slender tabasco-like (2.5 × 0.6 cm) purple (83A) fruit. Fruit mature to red (43A) in ≈ 3.5 months and are

borne solitarily or in clusters of two. Fruit are pendant and, hence, inconspicuous against the variegated foliage of line 90C40. The variegated foliage of line 90C40 provides interest throughout the growing season.

Line 90C44 is a compact plant selected for its dark-purple, nearly black (no appropriate RHS color chip) leaf pigmentation and many upright terminal fruit clusters. Plants average 25.4 cm in height and 35.6 cm in diameter. Fruit are borne upright in clusters of 10 to 15 fruit per cluster. Fruit mature in ≈ 3 months and are slender (2.5 × 0.6 cm, tabasco-like), purple (83A), and red (43A) at maturity. The purple foliage of line 90C44 provides interest throughout the growing season. Accompanying upright clusters of red fruit produce a striking display during the latter part of the growing season.

Line 90C53 is a large bushy plant selected for its bright-green (132C) foliage faintly mottled with dark-purple (83A) pigmentation and upright fruit clusters. Plants average 50.9 cm in height, 63.6 to 76.3 cm in diameter, and bear many upright slender (2.5 × 0.6 cm, tabasco-like) fruit. Fruit are borne solitarily or in clusters of two to three. Fruit are purple (83A) and mature to red (43A) in ≈ 4 months. Line 90C53's uniqueness lies in its striking display of bright-green foliage with upright clusters of fruit that are purple up to midseason and red for the latter part of the growing season.

All three lines have been tested commercially as bedding plants in Illinois and Japan and as potted plants in California. In the trials, the unusually colored foliage was noted by all the growers as an important addition to the gene pool of ornamental peppers. Testers noted a general lack of pest-related problems with all three lines when field grown. As greenhouse-grown potted plants, aphids and whiteflies (when present) attacked all three lines and

could be problematic. In tests conducted at Beltsville to determine the potential of these lines as potted plants, growth of all three lines in 0.4-liter pots was extremely vigorous, a result suggesting that additional growth-retardant studies are needed to assess their value as potted plants.

The development of lines 90C40, 90C44, and 90C53 has not been directed toward pepper culinary quality. This material may, however, have applications for pepper vegetable

breeding programs. Fruit of all three lines are very pungent. The multiple fruit set per node and upright fruit orientation found in this material are unique and desirable qualities in many pepper improvement programs.

Availability

A limited quantity of seeds of these three lines is available for distribution. Requests for seed should be made to J. R. S., USDA-ARS, Vegetable Laboratory, Beltsville Agricultural

Research Center-West, Bldg. 004, Rm. 220, 10300 Baltimore Ave., Beltsville, MD 20705. We request that the source of this germplasm be acknowledged if it undergoes further selection or is used in crosses for developing improved cultivars.

Literature Cited

Royal Horticultural Society. 1966. Royal Horticultural Society colour chart. Royal Hort. Soc., London.