REGISTRATION OF 'PADRE' SOYBEAN

'Padre' soybean [Glycine max (L.) Merr.] (Reg. no. 216, PI 518665) is derived from an F₁ line from the cross Forrest (3) × D77-12480. It was developed in a cooperative program of the USDA-ARS with Rio Farms, Inc., Edcouch, TX. Padre was released in February 1988 to provide a productive cultivar adapted for a wide range of planting dates in the lower Rio Grande Valley along with resistance to the reniform nematode (Rotylenchulus reniformis, Lenford and Oliveira, 1940). Prior to release it was identified as F83-1415.

Padre was developed specifically for the lower Rio Grande Valley. It is basically a Forrest (2) type having the unique character of delayed flowering under short-day conditions similar to D77-12480(1). Padre would be classified as Maturity Group VII when planted during May at Stoneville, MS 33 ° 20' lat but growth in the lower Rio Grande Valley 26-27 ° lat is similar to that of Maturity Group IX cultivars. Reniform nematode resistance is considered important to avoid a population increase when soybean precedes cotton or vegetable crops. Padre has a determinate growth type, white flowers, tawny pubescence, tan pod walls and yellow seeds with black hila.

The cross Forrest × D77-12480 was made at Gainesville, FL, along with subsequent backcrosses and selection for the delayed flowering character. Early generation lines were evaluated at Rio Farms, Inc. in mid-July plantings, to simulate plantings after sorghum. Advanced lines were evaluated in replicated plantings at Rio Farms, Inc. in mid-July, 1984, and selected lines were evaluated at three locations in 1985 and 1986 with plantings made in mid-June, mid-July, and mid-August. Padre showed good growth and productivity over the range in planting dates. Available Maturity Group IX cultivars had a narrow range in adaptation with some producing well in the mid-June plantings and others in the mid-August plantings. Forrest planted in mid-July in the lower Rio Grande Valley had a mature plant height of 20 cm. Padre has a mature plant height of 90 to 100 cm and reaches field maturity in 135 to 150 d.

Replicated field trials and greenhouse studies were conducted at the USDA-ARS Laboratory Weslaco, TX, on soil heavily infested with reniform nematodes to determine rate of reproduction of the nematode. Padre was determined to have a high level of resistance.

References and Notes

E. E. Hartwig,* K. Hinson, and A. Scott (3)