REGISTRATION OF PAHA WHEAT
(Reg. No. 510)
R. E. Allan and O. A. Vogel

‘Paha’ wheat, Triticum aestivum L., C.I. 14485, is a short-strawed club winter wheat selected from the cross ‘Sunow 92’/4 ‘Omar’ made at Pullman, Washington, in 1961. Paha was developed cooperatively by the Plant Science Research Division, Agricultural Research Service, U. S. Department of Agriculture and the College of Agriculture of Washington State University. It was jointly released to growers by the Agricultural Research Service and the Washington, Idaho, and Oregon Agricultural Experiment Stations in 1970.

Paha has short white straw that varies from 80 to 100 cm and usually is 10 to 20 cm shorter in plant height than Omar. Otherwise, it is morphologically similar to Omar. It has a very dense awnleted spike with brown glumes that are midlong and mid-wide. Paha has a test weight comparable to Omar but heavier.

Paha resists the prevalent races of the stripe rust fungus in the Pacific Northwest. It has more tolerance to Cercospora foot rot (strawbreaker) than either Omar or Moro. Paha is comparable to Omar for resistance to common bunt. It is more susceptible to leaf rust, powdery mildew and flag smut than Omar.

Paha is recommended primarily for 28- to 38-cm (11- to 15-inch) rainfall areas of the Pacific Northwest, especially when grown under conditions favoring leaf rust and Cercospora root rot. It has exceeded the yields of Moro and Omar in these rainfall areas of Washington by 10 to 20% over a 3-year period. Paha is not adapted to areas above 46 cm of rainfall; under these conditions it tends to lodge and produces less grain than Nugasae or ‘Moro’. Paha has the excellent milling and pastry baking quality of Omar and is superior to Moro in growth habit, maturity, winterhardiness and kernel type. Paha is superior to Omar and Alkar in resistance to lodging and shattering. It is best used in pure stands and is the most widely grown variety of tall wheatgrass in the west. Since Alkar is very late maturing, season-long moisture and a 140-day or longer frost-free season is required for seed production. Seed is grown in solid stand or rows and has produced over 675 kg/ha.

Four classes of seed (breeder, foundation, registered, and certified) are recognized for Alkar. Breeder and foundation seed are maintained by the Plant Materials Center, Soil Conservation Service, Pullman, Washington 99108.

REGISTRATION OF TOBAR PUBESCENT WHEATGRASS
(Reg. No. 8)
J. L. Schwendiman

‘Topar’ pubescent wheatgrass, Agropyron elongatum (Host.) Beauv., was developed by the Soil Conservation Service, U. S. Department of Agriculture and was released in 1953 in cooperation with the Washington, Idaho, and Oregon Agricultural Experiment Stations. It was developed by selecting plants from PI 107,330 introduced from Tashkent, Turkistan, USSR in 1934. Seed from the selected plants were bulked and increased under isolation. Nonpubescent, slow sod forming and otherwise weak plants were rogued in advanced generations. The bulked seed which constituted breeder seed was increased under isolation. Topar was tested as P-41.

Topar is a rapid spreading, open sod forming, rhizomatous, vigorous, late maturing, drought resistant, 42-chromosome wheatgrass. It has pubescent leaves, sheaths, and seed heads. Pubescence is distinctly noticeable on the margins of leaves, and the edges of glumes and lemmas. It is one of the most productive sod forming dryland grasses available in the Pacific Northwest. Topar is widely adapted in the Pacific Northwest and Great Basin states at elevations of 100 to 1,800 m on well drained, medium to heavy textured soils where the annual precipitation averages 25 to 40 cm. Topar is used primarily as a pasture grass in range plantings, dryland waterways, burned-over timber seedings and in dryland mixtures with alfalfa. It is better adapted to saline soils and areas of low fertility than smooth bromegrass or intermediate wheatgrass. Forage yields of Topar are higher but of lower palatability than that of smooth brome-grass.

Seed is usually grown in cultivated rows in areas of 40 cm or more annual precipitation or under irrigation. Generally, seed yields range from 150 to 400 kg/ha depending on culture, age of stand, and moisture.

One generation each of foundation, registered, and certified seed is recognized for Topar. Breeder and foundation seed are maintained by the Plant Materials Center, Soil Conservation Service, Aberdeen, Idaho 83210.