REGISTRATION OF OKEMA RYE
(Reg. No. 7)

‘Okema’ rye (Secale cereale L.), OK70991, C.I. 189, was developed cooperatively by the Oklahoma Agric. Exp. Stn. and the ARS, USDA. It was released in 1974.

Okema results from three cycles of mass selection for resistance to biotype C of the greenbug (Schizaphis graminum Rondani). The original source population consisted of F, hybrids from two rye crosses (‘Balbo’ × ‘Insave F.A.’ and ‘Elbon × Insave F.A.’). Insave F. A. is a greenbug resistant, upright rye from Argentina. Balbo and Elbon are winter-hardy in Oklahoma. Both are greenbug susceptible cultivars adapted to the southeastern and southcentral United States.

During each cycle of selection, a minimum of 100 plants were selected for height, straw strength, seed set, and tillering ability as well as greenbug resistance. Only resistant plants were allowed to interpollinate to provide seed for the next cycle. Greenhouse tests in advanced generations indicate that approximately 97% of the plants of Okema are resistant to greenbug biotype C.

Okema is similar to Elbon in general appearance. Like Elbon, it combines winterhardiness with upright growth characteristics. Stems of Okema are white and hollow. Spikes are awned, fusiform, and lax. Glumes are white, 8 to 10 mm in length, and 2 mm in width. Kernels are light colored, mid-long, and ovate to elliptical in shape. Okema has fewer hairs on the peduncle than Elbon. Some peduncles are nearly glabrous. Okema is slightly shorter than Elbon in height and lower in test weight. It is equal to Elbon in maturity and forage production. Okema appears to be lower than Elbon in grain yield when greenbugs are not severe. Okema is the first winter-hardy, greenbug resistant rye cultivar developed for United States producers.

The Oklahoma Agric. Exp. Stn. will be responsible for maintenance of breeder seed.

REGISTRATION OF CARDON WHEAT
(Reg. No. 565)
Wade G. Dewey

‘Cardon,’ CI 17295, is a hard red winter wheat (Triticum aestivum L., em Thell.) developed by the Utah Agric. Exp. Stn. It originated from the same cross, ‘Delmar’/PI 178388/‘Columbia’ as did ‘Hansel.’ The single plant selection that resulted in Cardon was made in 1967 from a space-planted F, bulk population. Prior to its naming and release in 1974, it was designated as UT 755204. Its testing included 5 years at various dryland locations in Utah and 3 years in the Western Regional Hard Red Winter Wheat Nursery. It averaged over 50% yield advantage over Bridger.

Cardon has white straw of medium height, 10 cm shorter than Hansel. The spike is awned, the awns and glumes are bronze. The kernels are red, hard, and midlong. Test weight is average. It has good loaf volume and strong mixing properties. In yield trials in northern Utah Cardon has consistently ranked in the upper one-third of the entries.

Hansel was selected primarily for its high level of resistance to dwarf bunt (Tilletia controversa Kühn). Hansel represents an improvement in yield advantage over Bridger. Hansel was selected primarily for its high level of resistance to dwarf bunt (Tilletia controversa Kühn). Hansel also represents an improvement in baking quality over Cache and has generally shown a slight yield advantage over Bridger.

Cardon has white straw of medium height, 10 cm shorter than Hansel. The spike is awned, the awns and glumes are bronze. The kernels are red, hard, and midlong. Test weight is average. Cardon has performed well in milling and has good loaf volume and strong mixing properties. In yield trials in northern Utah Cardon has consistently ranked in the upper one-third of the entries.

Breeder and Foundation seed will be maintained by the Utah Agric. Exp. Stn., Logan, UT 84322.

REGISTRATION OF HANSEL WHEAT
(Reg. No. 566)
Wade G. Dewey

‘Hansel,’ CI 17296, is a hard red winter wheat (Triticum aestivum L., em Thell.) developed and released by the Utah Agric. Exp. Stn. in 1974. It was selected as a single plant from the cross ‘Delmar’/PI 178388/‘Columbia’ in intrastate and regional testing it was identified as Cardon.

Hansel was selected primarily for its high level of resistance to dwarf bunt (Tilletia controversa Kühn). Hansel also represents an improvement in baking quality over Cache and has generally shown a slight yield advantage over Bridger.

Hansel is medium in maturity, has awned fusiform spikes and medium to tall, white culms. It is limber and not suited to irrigated conditions. The kernels are red, hard, and midlong. Hansel exhibits good seedling emergence and spring vigor. In addition to dwarf bunt resistance, it possesses resistance to the races of stripe rust (Puccinia striiformis). Hansel has strong sedimentation and mixes well for good loaf volume.

Hansel derives its name from Hansel Valley, one of the chronic dwarf bunt problem areas in northern Utah.

Hansel has strong sedimentation and mixes well for good loaf volume.

Breeder and Foundation seed will be maintained by the Utah Agric. Exp. Stn., Logan, UT 84322.

1Registered by the Crop Science Society of America. Published as journal series paper no. 2924 with the approval of the director of the Oklahoma Agric. Exp. Stn., Logan, UT 84322.

2Registered by the Crop Science Society of America. Received July 12, 1975. Approved for publication as Utah Agric. Exp. Stn. journal series paper no. 2924.

3Registered by the Crop Science Society of America. Published November, 1975. Approved for publication as Utah Agric. Exp. Stn. journal series article no. 1895.