season in maturity, has erect, awned spikes and is a self-pollinating line with few outcresses observed. Seed is relatively plump and the test weight was 8% greater than 6TA-131 and 84% that of Coker 68-15.

Disease infection levels of *Septoria tritici*, *S. nodorum* and *Puccinia recondita* f. sp. *tritici* (leaf rust) have been light to moderate. OK 78828 should make an excellent parent for use in a forage and/or grain cultivar breeding program designed to increase production for both purposes in the mid-South. Seed will be maintained by Arkansas Agric. Exp. Stn. at the Northeast Res. and Ext. Ctr., Keiser, AR 72351 and limited quantities will be available after July 1982.

**REGISTRATION OF LRS-1F193 WHEAT GERMPLASM**
(Reg. No. GP 206)

E. D. P. Whelan, T. G. Atkinson, and R. I. Larson

The LRS-1F193 wheat (*Triticum aestivum* L.) germplasm was released by the Lethbridge Research Station, Agriculture Canada, Lethbridge, Alberta, in 1982. This germplasm carries resistance to *Eriophyes* (= *Aceria*) *tulipae* (Keifer), the mite vector of wheat streak mosaic virus and the wheat spot mosaic agent. There is no known effective control of the mite using chemicals, and cultural control of the disease based on time of seeding of winter wheat is often not effective (1).

The resistance was first identified in *T. aestivum* 'Rescue' X *Agropyron elongatum* (Host). Beauv. line (2n = 21') in which the wheat chromosomes 4D, 5D, and 6D had been replaced by homoeologous chromosomes from *A. elongatum* (2). The triple alien substitution line was fully fertile. Resistance to the mite subsequently was shown to involve the *A. elongatum* chromosome 6 (3).

The new germplasm was developed (Larson, unpublished) by obtaining an induced translocation between *A. elongatum* chromosome 6 (Ae6), which can substitute for group 6 homoeologues, and a wheat chromosome using the nullisomic-5B effect as proposed by Sears (4). Rescue, monosomic for chromosome 5B, was crossed as the female parent by a disomic alien substitution of Rescue in which Ae6 was substituted for Rescue 6D (RN6DAe6 di). A triple monosomic (19' + 3') progeny, presumed to be monosomic for 5B, 6D and Ae6, was crossed as the female parent again by RN6DAe6 di. A single monosomic selection from this cross was self-pollinated and subsequent progeny, identified as monosomic for 5B, were pollinated by 'Chinese Spring'-nullisomic 5B-tetrasomic 5D. A single plant from this cross, with 41 chromosomes and multivalents in meiosis, was crossed as the female parent by RN6DAe6 di. Seedlings were tested for resistance to the wheat curl mite, *E. tulipae*, as previously described (3) and a resistant selection crossed as the pollen parent to 'Cadet'. Prolific progeny were tested for mite resistance and one resistant plant was pollinated by Cadet. Following three cycles of self-pollination and selection for resistance, a plant with normal meiosis (21'') and homozygous, dominant resistance to *E. tulipae* was obtained. No segregation for resistance was found in the progeny of this plant for three generations. The germplasm released is a bulked sample of bagged heads from 40 resistant plants grown in a growth room in 1981.

**REGISTRATION OF VEL AND FUZZ COMMON WHEAT GERMPLASM**
(Reg. Nos. GP 207 and GP 208)


VEL and Fuzz soft red wheat germplasm (Reg. Nos. GP 207 and GP 208) were developed cooperatively by the Purdue Univ. Agric. Exp. Stn. and the ARS-USDA and jointly released, respectively. They are intended for use as sources of resistance to the cereal leaf beetle (*Oulema melanopus* L.)

VEL, CI 15890, is a soft red winter wheat from the test cross, 'Arthur' sib/CI 9321. Selection for resistance to the cereal leaf beetle in the F2 generation was made in each generation from F1 to F4 and for field resistance to the cereal leaf beetle in the F2. Vels' resistance is attributable to its pubescence, which is derived from the CI 9321 parent. There are 124 trichomes per mm² on the adaxial surface of VEL and Fuzz, compared with 100 for Vel, and 30 for Arthur. VEL and Fuzz seed was used in small-scale plot trials in 1971, oviposition and larval damage on Vel were reduced 94% compared to Arthur. VEL has excellent milling and baking quality, but is not aggressive for commercial production. It is adapted for experimentation in field and greenhouse trials. The CI 9321 parent is a white-seeded soft red winter wheat with 93% soft white seed. VEL and Fuzz are adapted for experimental use in both field and greenhouse trials. The CI 9321 parent is a white-seeded soft red winter wheat with 93% soft white seed. VEL and Fuzz are adapted for experimental use in both field and greenhouse trials.

Ewes, CI 17412, is a soft red winter wheat with 90% soft white seed, 92% hard white seed, and 8% intermediate seed. The resistance to the cereal leaf beetle in the F2 generation was made in each generation from F1 to F4 and for field resistance to the cereal leaf beetle in the F2. Ewes' resistance is attributable to its pubescence, which is derived from the CI 9321 parent. There are 124 trichomes per mm² on the adaxial surface of Ewes and Fuzz, compared with 100 for Ewes and 30 for Arthur. Ewes has excellent milling and baking quality, but is not aggressive for commercial production. Ewes is adapted for experimentation in field and greenhouse trials.