Branch Experiment Station, Aberdeen, Idaho, in 1953 by Y. A. Coffman. Cleo was derived from the cross ‘Wintok’ × (‘Clinton’ × ‘Santa Fe’). The Clinton backcross parent was developed at Ames, Iowa, by H. C. Murphy. The history and description of Arlington and Wintok have been published. Cleo was not released but was named because of its use in many crosses. Cleo is a moderately hardy, productive, stiff-strawed oat with plump, white kernels. It has resistance to Victoria blight, soil-borne mosaic, barley yellow dwarf virus, halo blight, and several races of crown and stem rust, and is susceptible to several common races of smut.

An F$_2$ Arlington × Cleo selection (C.I. 7220) was entered in the Uniform Winter Oat Hardiness Nursery in 1956-57 and grown in a small increase plot at Experiment, Ga. U. R. Gore selected 100 panicles from this somewhat heterozygous plot for growing in headrows at Aberdeen, Idaho. The most productive progenies were sown in rows on both Beltsville, Md., and Experiment, Ga., by Coffman, Starling, and Gore, respectively. The highest yielding lines were included in the Uniform Central Area Winter Oat Nursery from 1959-62, inclusive. Roanoke was one of these selections. The history and description of Roanoke have been published.

Roanoke was superior to the Arlington check for yield, test weight, lodging resistance, and winter survival. It was about 2 inches shorter than Arlington and headed 1 day earlier. Roanoke was observed to possess considerable resistance to Victoria blight, crown rust races 203, 216, and 294, barley yellow dwarf virus, halo blight, smut, and culm rot. In six Uniform Soil-Borne Mosaic Nurseries Roanoke was rated only 8.8% above the resistant Arlington check in amount of infection, whereas some susceptible varieties were rated as high as 74.0% above Arlington.

Morphologically, Roanoke may be described as follows: juvenile growth decumbent to semi-decumbent; plants mid-late and mid-tall with many tillers; culms moderately stout with nonpubescent nodes; leaves of medium width and green color with little or no marginal pubescence; ligule present; panicles large, quilateral; rachis straight to slightly flexuous; branches mid-long, slightly raised to slightly drooping in attitude; spikelets 2-flowered; glumes mid-long and of medium fine texture; lemma medium in length and width (plump kernels), white, but with slight flecking of gray; palea white, often flecked with gray; awn usuall absent, but an occasional short awn may be found; basal scar obscure usually absent, although an occasional rachilla may be present; rachilla mid-long, slender with an occasional short to mid-long hair present; separation of florets usually absent, by fracture and distal, sometimes by heterofracture.

Roanoke was increased primarily in Virginia and, to a limited extent, in Georgia and North Carolina. It was released by the Virginia and North Carolina Agricultural Experiment Stations, in cooperation with the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture, in 1962.

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1 Registered by the Crop Science Society of America, Inc., at the annual meeting of the Crop Science Society of America, Inc., at the annual meeting of the American Society of Agronomy, at the American Society of Agronomy, and at the American Society of Agronomy.

2 Agronomist, Georgia Agricultural Experiment Station, U. R. Gore, F. A. Coffman, and T. M. Starling.


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REGISTRATION OF JEFFERSON OAT (Reg. No. 208)


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2Agronomist, Georgia Coastal Plain Experiment Station, Tifton, Ga.; Agronomist, Georgia Agricultural Experiment Station, U. R. Gore, F. A. Coffman, and T. M. Starling.

