REGISTRATION OF ETA OATS GERmplASM
(Reg. No. GP 4)
Franklin A. Coffman

‘Eta’ oats (Avena sativa L.), C.I. 8347, was selected at Aberdeen, Idaho, in 1962 from a progeny head row of ‘Eaton,’ C.I. 3908, Reg. No. 109. It was one of 16 “cultivated type” progenies grown in a head row at Aberdeen in 1962. The history of this Eaton population has been published3,4. The 16 plants resembled Eaton morphologically, except for the obvious aberrant, Eta, and one plant slightly resembling it.

Progenies of Eta have been grown for two generations and to date have bred comparatively true to the original plant type.

Juvenile plant. Culm very stout, leaves tend to be normal in color and width, are rather upright, and have the usual marginal pubescence.

Adult. Culms short, unusually stout, stiff, usually with little or no pubescence on sheath, node, or leaf, although some individuals may exhibit some pubescence.

Leaves. Mid-wide and mid-long, and tend to be raised in attitude with little or no marginal pubescence, nor unusual shade of green color.

Panicles. Unusually long for height of plant (1/3 to 1/4 of culm length); rachis stout, straight, stiff; branches rather numerous and tend to be mid-long and stout and are definitely raised in attitude; panicle rarely drooping.

Spikelets. Rather numerous; two florets; outer glume yellowish in color and medium in texture, length, and width. Lemma light yellowish white, mid-long and mid-wide (plump), usually awnless but a few straight to sub-geniculate awns may be present.

Florets. Separate usually by fracture; distal (Avena sativa) basal cavity usually absent and when present very obscure; small with possibly very short hairs present.

The outstanding morphologic characteristics of Eta, C.I. 8347, are short, unusually stout culms, yet with a large panicle (1/3 to 1/4 of culm length). Panicles are characterized by an erect, stout rachis and somewhat erect-growing, stout branches. Spikelets and florets are like those of most cultivated varieties of A. sativa.

Crosses have been made with Eta as a parent without unusual difficulty. To date no hybrid progeny populations have been grown nor studied genetically.

Seed in small quantities (5 grams) is available from the Oat World Collection, maintained by the U.S. Department of Agriculture. Requests should be directed to the Crop Science Division, Plant Industry Station, Beltsville, Md.

REGISTRATION OF LA BURLEY 21 TOBACCO GERmplASM
Registration No. (GP 8)
Paul D. Legg, G. B. Collins, and C. C. Litton

LA BURLEY 21 tobacco (Nicotiana tabacum L.) was developed by introducing low alkaloid genes from Cuban cigar varieties into Burley 21 through a series of backcrosses. LA Burley 21 has been observed for several years and was tested extensively in 1968. In all tests, LA Burley 21 was different from Burley 21 in days to flower, leaf size, and plant height. The yield of LA Burley 21 has been approximately 675 kg/ha below Burley 21, yet an extremely low alkaloid content. The line does not convert nicotine to nornicotine and has a relatively sweet flavor, with no harsh taste have been detected in cigarette smoke.

LA Burley 21 was released in 1969 for research purposes. Seed stocks are maintained at the Agricultural Experiment Station, Lexington, Ky.

1 Registered by the Crop Science Society of America. Received Dec. 31, 1969.

CORRECTION

The article “Inbreeding in Synthetic Varieties” by Thad H. Busbice on pages 601-604 in the September-October issue contains serious errors in two of the formulas. A term was omitted from the formula for the coefficient of parentage between half sibs given near the middle of column 1 on page 602. This formula is correctly given here:

\[ r_{xy} = \frac{1}{8k} \left[ 1 + (2k - 1) F_{xy} + 2k (r_{x0} - F_{xy}) \right] \]