REGISTRATION OF CROP CULTIVARS

seed weight, chromosome number 2n = 40, bunch type growth habit, blue-green foliage color, and post-harvest seed maintenance. Dormant seed are metabolically alive and seed laboratory tests are effective in evaluating germination.

Puhiuima (pronounced pu hoo e ma, Indian tribe language translated as — "renewing of grass life") was selected as a single apomictic aberrant plant from PI 106088 and designated as experimental L-28. Evaluations were conducted among sources through program-controlled environment in a growth chamber. Puhiuima was significantly superior to all Lehmann lovegrass sources except L-28. Puhiuima seed are metabolically alive and seed laboratory tests are effective in evaluating germination.

Stand establishment and survival density were comparatively lower than those of cultivar 'Kuivato' and A-68 Lehmann lovegrass, yet forage yield was 15% greater than 'A-68'. An outstanding characteristic was the yield to density ratio which was 105%, greater than that of A-68. Forage yield of Puhiuima was superior to that of common Lehmann lovegrass. Lehmann lovegrass is more efficient in using water than any other known forage or crop species. Puhiuima used 18% less water to produce an equal amount of herbage than A-68. Puhiuima is an excellent seed producer with good reseeding characteristics under natural environments. Puhiuima was developed for tolerance under stress environments of the Southwest. It is adapted to semiarid and arid grasslands for seeding deteriorated rangeland sites at elevations generally below 1,400 m with 30 to 35 cm annual rainfall. Puhiuima has intermediate seed weight, chromosome number 2n = 40, bunch type growth habit, blue-green foliage color, yellow-anther color, and post-harvest seed dormancy. Dormant seed are metabolically alive and seed laboratory tests are effective in evaluating germination.

Seed production of Puhiuima lovegrass is limited to breeder foundation and certified seed classes. Breeder seed will be maintained by the Dep. of Plant Sciences, Arizona Agric. Exp. Stn., Univ. of Arizona, Tucson, AZ 85721.

REGISTRATION OF BOB OAT1

(F. C. Collins and J. P. Jones8

'Bos' oat (Avena sativa L.), CI 9261, Ark, 99-190, is a winter oat cultivar released by the Arkansas Agric. Exp. Stn. in 1977. It was derived from a cross of 'Nora' × 'Florida 501' made in 1970. Bob traces to an F1 plant that exhibited crown rust resistance (Puccinia coronata Cda. F. sp. avenue Eriks & E. Henn.) at Stuttgart, Arkansas in 1972. It has been tested in Arkansas for 5 years and in the Uniform Central Winter Oat Nursery from 1975 to 1977. Prior to release, 15 F2, sister lines of similar appearance were composited to form the breeder seed.

Bob should be well adapted to the oat growing areas of Arkansas and adjacent states with similar environments. Bob is particularly well adapted to the Grand Prairie area of Arkansas where most of the seed oats is grown. The 5-year yield averages for Bob, Nora, and Florida 501 at the Rice Branch Station near Stuttgart, Arkansas, were 3,838, 3,415, and 3,171 kg/ha, respectively. Bob also has had heavier test weight (48.3 kg/ha), better crown rust resistance, and higher protein level (10.5% greater than that of A-68). Forage yield of Puhiuima was superior to that of common Lehmann lovegrass. Lehmann lovegrass is more efficient in using water than any other known forage or crop species. Puhiuima used 18% less water to produce an equal amount of herbage than A-68. Puhiuima is an excellent seed producer with good reseeding characteristics under natural environments. Puhiuima was developed for tolerance under stress environments of the Southwest. It is adapted to semiarid and arid grasslands for seeding deteriorated rangeland sites at elevations generally below 1,400 m with 30 to 35 cm annual rainfall. Puhiuima has intermediate seed weight, chromosome number 2n = 40, bunch type growth habit, blue-green foliage color, yellow-anther color, and post-harvest seed dormancy. Dormant seed are metabolically alive and seed laboratory tests are effective in evaluating germination.

Seed production of Puhiuima lovegrass is limited to breeder foundation and certified seed classes. Breeder seed will be maintained by the Dep. of Plant Sciences, Arizona Agric. Exp. Stn., Univ. of Arizona, Tucson, AZ 85721.

REGISTRATION OF MELROSE FIELD PEA1

(D. L. Auld, G. A. Murray, L. E. O'Keefe, A. R. Campbell, and D. Markarian

'Melrose' field pea (Pisum sativum subsp. arvense (L.) Poir) was released by the Univ. of Idaho in cooperation with Oregon State Univ., Washington State Univ., and Michigan State Univ. in December, 1977. It is an F2 selection from a cross between 'Perfection' which sources spring peas and a selection from 'Austrian Winter' field pea. This cultivar has been under evaluation at the Univ. of Idaho since 1973 but originally was obtained from Michigan State Univ. as an experimental line. Melrose has a chocolate brown, speckled and mottled seed coat; smooth seed; and yellow cotyledons. When seeded in the early fall, this cultivar flowers in early June above the fifteenth node in an indeterminate manner. Two or three purple flowers are borne on each peduncle. Vines may exceed 1.5 m in length at maturity. It does not require vernalization to flower and can be seeded in the early spring.

Melrose has tolerance to Ascochyta foot rot (Phoma medicaginis Malinn. and Roum. var. pinudellola (Jones)Boerema) and the pea leaf wervil (Sitona lineatus L.). It is susceptible to Fusarium wilt race 1 (F. oxysporum Schlecht f. sp. pisi lid. Soyd and Hans) and powdery mildew (Erysiphe polygoni D. C.). Melrose has yielded 11, 15, and 19% more seed than 'Fenn,' 'Austrian Winter,' and 'Romack' field peas, respectively in northeastern Idaho.

Melrose is adapted to a wide range of soils and may be well suited for use as a green manure crop in the cotton and corn producing regions of the United States. It has excellent winter survival in northern Idaho when seeded in the early fall. This cultivar cannot tolerate waterlogged soils or submersion under standing water.

Seed production of Melrose will be limited to one generation each of foundation, registered, and certified seed. A limited supply of breeder seed will be maintained by the Idaho Agric. Exp. Stn., Moscow, ID 83849. Commercial seed production will be supervised by the North Idaho Foundation Seed Association, Moscow, ID 83843, in cooperation with the Washington and Oregon Crop Improvement Associations.

REGISTRATION OF EARLY BUNCH PEANUT1

(A. J. Norden, R. O. Hammons, and D. W. Gorbet

The 'Early Bunch' peanut, Arachis hypogaea L., subspecies hypogaea, var. hypogaea, was jointly released by the Agricultural Experiment Stations of Florida and Georgia and the FR-SEA-USD A in December 1977. Early Bunch was derived by pedigree selection from a cross made at Gainesville, Florida, in 1961 between two Florida breeding lines, F406A and F420. The female parent (F406A) descended from a 1954 cross between 'Virginia Station Jumbo' and Florida line 385-17-4. The male parent (F420) descended from


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