REGISTRATION OF GERMPLASM

periment Station and the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture.

Ky 14 is comparable to Burley 21 in plant height, leaf length, and leaf angle. The leaves of Ky 14 are slightly wider; the internodes are somewhat shorter; and the maturity is 3 to 5 days later than Burley 21. Further comparisons with Burley 21 show that Ky 14 yields about 10% more cured leaf of slightly lower average quality based on federal grades. It should be most useful where black root rot or fusarium wilt are problems.

Foundation seed of Ky 14 is available to certified seed producers for increasing. Breeder and foundation seed of Ky 14 will be maintained by the Kentucky Agricultural Experiment Station.

REGISTRATION OF VAHART WHEAT

(T. M. Starling)

(Vahart) wheat (Triticum aestivum L. em. Thell.), C. I. 12537, is a soft red winter variety released by the Virginia Agricultural Experiment Station in 1945. This variety was developed from a single plant selected out of 'Redhart.' The original selection was made at Blacksburg, Virginia, by the late T. B. Hutcheson. At the time of its release, Vahart was superior to other varieties being grown in Virginia in grain yield and resistance to loose smut. It is resistant to south rust and has some resistance to powdery mildew. It amounts to approximately 24% of the wheat acreage in Virginia but has declined in acreage as newer and improved varieties have become available. At the present time, it occupies very limited acreage.

Morphological characteristics of Vahart have been described as follows: plant winter habit, midseason, mid strong; spike awnleted, fusiform, lax to semihard, ovate; germ midsized; crease midstrong; glumes glabrous, white, midlong, midwide; shoulders oblique to rounded; awnlets several, 5 to 20 mm. long; kernels to semihard, ovate; germ midsized; crease midstrong; glumes rounded; brush midsized, midlong.

Vahart has been grown primarily in Virginia. Germ plasm amounts of seed are available from Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture.

REGISTRATION OF MRS-1, MRS-2, MRS-3,
AND MRS-4 TOBACCO GERMPLASM

(James F. Chaplin, T. J. Mann, D. F. Matzinger, and J. L. Apple)

MRS-1 (Reg. No. GP 1), MRS-2, (Reg. No. GP 2), MRS-3 (Reg. No. GP 3), and MRS-4 (Reg. No. GP 4) (Nicotiana tabacum L.) are mosaic resistant flue-cured tobacco breeding lines. The lines were released jointly in 1964 by the South Carolina Agricultural Experiment Station, Clemson, S.C.; North Carolina Agricultural Experiment Station, Raleigh, N.C.; and the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture. Tobacco mosaic (TMV) is a serious disease of flue-cured tobacco. While resistance to the disease has been available for a number of years, no widely accepted resistant flue-cured varieties have been developed. MRS-1, MRS-2, MRS-3, and MRS-4 represent considerable research work to eliminate as many as possible of the undesirable characteristics associated with TMV resistance.

Cultivar 'Va 45' with TMV resistance from N. glutinosa L. was the source of resistance used in these lines. Mosaic resistance source 1 (MRS-1) is a flue-cured tobacco breeding line which was in the BC1 generation, when released, from a cross between '402' and Va 45. The recurrent parent was 402. The other lines were in the same generation but had different recurrent parents. The recurrent parent for MRS-2 was 'Hicks,' and MRS-3 — 'Coker 139,' and MRS-4 — 'Dixie 132.'

In field tests the resistant lines differed from their flue-cured recurrent parents by having slightly reduced yields per 45.4 kg (cwt), however, they are suitable for these same characteristics.

Seed of the new lines are available for distribution to experiment Stations and seed producers for development of resistant tobacco varieties. The only stipulation for obtaining seed of the lines is that they not be used directly as commercial varieties, and that their use in varietal development be credited to the releasing agencies. Request for seed should be made to Tobacco Breeding and Disease Investigations, Tobacco Research Station, Oxford, North Carolina.

REGISTRATION OF PDMS-1 AND PDMS-2 TOBACCO GERMPLASM

(James F. Chaplin)

PDMS-1 (Reg. No. GP 5) and PDMS-2 (Reg. No. GP 6) were male sterile flue-cured tobaccos (Nicotiana tabacum) lines were released jointly in 1965 by the South Carolina Agricultural Experiment Station, Clemson, S. C., Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture. The sterility in these lines is the result of the male sterility trait of tobacco.