UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

ECOLOGICAL SCIENCES DIVISION

WASHINGTON, D.C.

AUBURN UNIVERSITY

ALABAMA AGRICULTURAL EXPERIMENT STATION

AUBURN, ALABAMA

NOTICE OF RELEASE OF 'AU EARLY COVER' HAIRY VETCH

An early blooming cool season legume for use in conservation tillage systems.

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AND
AUBURN UNIVERSITY
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The United States Department of Agriculture, Soil Conservation Service, and the Auburn University Alabama Experiment Station announces the release of 'AU Early Cover' hairy vetch, (*Vicia villosa* Roth.).

Earlier in this century legume cover crops were in wide use. Farmers utilized various legumes for green manure crops throughout the Southeastern United States. These crops provided excellent cover for the prevention of soil erosion and they also produced valuable nitrogen for subsequent crops. With the popularity of commercial fertilizers, the use of legumes for green manure crops declined. However, agricultural scientists have again begun to do extensive work with cool season legumes for use on southern farms in conservation tillage systems.

In fall 1983, the Americus Plant Materials Center started to assemble and evaluate collections of cool season annual legumes, for use as cover crops in conservation tillage systems. The center has used the initial evaluation block located on orangeburg sandy loam at Americus, Georgia to screen approximately 1,000 cool season annual legume accessions. These legumes have included germplasm from several genera including *Lathyrus*, *Trifolium*, *Vicia* and *Medicago*. They were assembled from foreign, as well as naturalized populations. All foreign accessions came through the plant introduction systems. The naturalized legumes were collected and processed by Soil Conservation Service personnel in the Southeastern United States. Each accession (a documented and numbered legume) was evaluated for adaptability, growth, vigor, winterhardiness, stand, reseeding ability, flowering date, seed production, disease resistance and insect resistance.

Much of the beneficial nitrogen produced by these legumes is assimilated by the time most cool season legumes flower. Therefore, it would by advantageous to develop various legume cultivars that display the early blooming characteristics, since this would allow for flexibility in conservation tillage systems. With this in mind, the Americus Plant Materials Center began a program to develop new early blooming and early developing cool season annual legume cultivars for conservation tillage use.

In 1987 and evaluation field was established to select early blooming and early developing lines of hairy vetch. This produced a selection of three new lines. These lines of hairy vetch tested against commercial hairy vetch for forage yield, crude protein production and bloom date. These test were conducted in 1992/1993 at six locations (Tallassee, Americus, Winfield, Belle Mina, Marion Junction and Monroeville). After these progeny tests, the three lines were used to create this synthetic.

APPROVAL FOR RELEASE OF 'AU EARLY COVER' HAIRY VETCH

Director. Ecological Science Division
United States Department of Agriculture
Soil Conservation Service
Washington, D.C.

3/9/94
Date

State Conservationist
United States Department of Agriculture
Soil Conservation Service
Auburn, Alabama

2/24/94
Date

Acting For Herxbel R. Read
State Conservationist
United States Department of Agriculture
soil Conservation Service
Athens, Georgia

03-07-94
Date

State Conservationist
United States Department of Agriculture
soil Conservation Service
Columbia, South Carolina

3-2-94
Date

Director
Auburn University
Alabama Agricultural Experiment Station
Auburn, Alabama

January 18, 1994
Date