Selections from two different crosses involving 63015M were free of Prunus Necrotic Ringspot Virus. One female selection that is currently undergoing extensive field evaluation trials in Oregon, Washington, and Idaho was free of all hop viruses found in the United States. Another female selection currently in extensive trials in Washington and Oregon was found to be free of Prunus Necrotic Ringspot Virus and Apple Mosaic Virus. USDA 63015M occasionally transmits a mild yellow-fleck leaf pattern to some of its progeny. This condition has not yet been linked to any known disease and may be physiological in nature. Certain selections from crosses involving 63015M also show peculiar leaf spot symptoms late in the season with the appearance of water-soak spots similar to those associated with bacterial infection. No pathogens have ever been isolated from these spots which may also be due to physiological causes. Some of the more than 15 crosses involving 63015M over the past decade produced a number of dwarf seedlings that attained 1 to 2 m height in the field and never reached sexual maturity. These dwarfs were determined cytologically to be diploids. Dwarfishness was often recognizable at the seedling stage by extensive branching of juvenile shoots. Other seedlings from the same cross were normal vigorous plants.

The USDA in cooperation with the Oregon Agricultural Experiment Station officially released USDA 63015M for public use in June 1982. Planting stock of USDA 63015M will be maintained by the Oregon Agricultural Experiment Station. A limited amount of propagates will be supplied to research institutions and interested growers upon written request.

REGISTRATION OF PEARL MILLET GERMPLASM LINES WITH CHINCH BUG RESISTANCE
(Reg. No. GP 16 to GP 23)
O. G. Merkle, K. J. Starks, and A. J. Casady

Five pearl millet, Pennisetum americanum (L.) Leeke, lines resistant (R) to chinch bug, Blissus leucopterus leucopterus (Say), and three susceptible (r) lines for comparison purposes were released by the Oklahoma Agricultural Experiment Station and USDA-ARS, 8 Apr. 1982. Experimental designations were PM23BIR (GP 16), PM30BIR (GP 17), PM46BIR (GP 18), PM122BIR (GP 19), PM151BIR (GP 20), PM7BIR (GP 21), PM77BIR (GP 22), and PM114BIR (GP 23).

The lines were developed from the second cycle of recurrent selection for yield in a pearl millet random mating population, RPM1(S)C13. The possibility of chinch bug resistance was noted while conducting S2 yield trials in Kansas. Seed of the 200 entries in the S2 yield trial was sent to Stillwater, Oklahoma, for evaluation for chinch bug resistance.

Field tests in 1978, 1979, and 1980 and limited greenhouse tests in 1979 and 1980 led to the isolation of the released lines. Test crosses indicated that a single dominant gene is involved in resistance; however, the parents of the original population were not evaluated so the origin of the resistance is unknown. No selection has been made for agronomic traits in these lines so some variation exists within each line.

Small quantities of seed, until the supply is exhausted, may be obtained from the senior author located at the USDA-ARS, Plant Science Research Facility, P.O. Box 1029, Stillwater, OK 74076.

REGISTRATION OF AZ9504 SORGHUM GERMPLASM
(Reg. No. GP 134)
Robert L. Voigt

The A-line was developed for use in production of sorghum-sudangrass hybrids. It imparts to its hybrids a superior ability to maintain stands under multiple clippings or grazings and thus produce a greater total seasonal yield. The A- and B-lines also have produced high yielding forage type hybrids.

AZ9504 is a selection from the cross ('Caprock' X 'Axtell') X ('White Collier' X 'Rox') originating at the Nebraska Agricultural Experiment Station. The A- and B-lines of AZ9504 attain plant heights of 120 to 150 cm. The stalk is medium in size, medium sweet and juicy. The leaves are medium to narrow in width with opaque midribs. The panicles are semi-compact with rather small dark brown seeds enclosed in dark brown awnless glumes. AZ9504 blooms about 2 weeks later than RS 610.

Breeders seed and certified seed stocks are available from the Arizona Crop Improvement Assc., the Dep. of Plant Sciences, and the Arizona Agric. Exp. Stn., respectively, Univ. of Arizona, Tucson, AZ 85721.

REGISTRATION OF FC 711 SUGARBET GERMPLASM
(Reg No. GP 87)
R. J. Hecker and E. G. Ruppel

SUGARBET (Beta vulgaris L.) germplasm FC 711 was developed by USDA-ARS, in cooperation with the Beet Sugar Development Foundation and the Colorado State University Experiment Station, and jointly released in 1982.

FC 711 (Reg. No. GP 87) was developed as a source of resistance to root rot caused by Rhizoctonia solani Kuhn. This germplasm is diploid (2x = 18), multigerm, pollen fertile, self-sterile, and relatively easy bolting; it segregates for pink and green hypocotyl color.

FC 711 originated from two heterogeneous breeding lines from Japan, where, under natural infection, some selection was done for resistance to R. solani. From these two accessions, FC 711 was produced following four cycles of inoculation and intense selection for resistance to a root rotting strain of R. solani. Included were one cycle of recurrent selection with progeny testing, two cycles of mass selection in the vegetative phase, and one cycle of mass selection in the seed production phase. Under artificially-created conditions, the 

2 Research agronomist; research entomologist, USDA-ARS, Plant Science Research Facility, P.O. Box 1029, Stillwater, OK 74076, and retired. Research agronomist, USDA-ARS, Dep. of Agronomy, Manhattan, KS 66502.