and reticulation but slight to moderate constriction. The average pod length and breadth are 25 and 12 mm, respectively. Its seeds have tan testa, with a 100-seed mass of 38 g. Seeds average 49.6% oil and 22.0% protein, with an oleic/linoleic fatty acid ratio of 1.54. In a drought-tolerance field screening nursery at ICRISAT Center, ICGV 87121 recorded a significantly (P < 0.05) greater growth rate for pod yield (5.96 g m⁻² d⁻¹) over the trial mean (4.5 g m⁻² d⁻¹), indicating its above average performance at all levels of water deficits (2). ICGV 87121, although a Virginia botanical type, would be traded as a Spanish market type because of its low seed mass.

The ICRISAT Center, Patancheru, AP 502 324, India, maintains the breeder seed.

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References and Notes


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REGISTRATION OF FOUR SUGARBEET GERMPLASMS SELECTED FROM THE NC-7 BETA COLLECTION

Four sugar beet (Beta vulgaris L.) germplasms, F1011 to F1014 (Reg. no. GP-134 to GP-137; PI 555454, PI 552532, PI 552533, and PI 552534), were developed by the USDA-ARS and the North Dakota Agricultural Experiment Station and released 8 July 1988. These germplasms make readily available a portion of the genetic diversity within the USDA National Plant Germplasm System Beta collection.

One hundred sixty-seven accessions from the B. vulgaris collection (NC-7) maintained by the USDA-ARS at Ames, IA, were evaluated for sucrose concentration. The sucrose concentration of individual roots was determined from a small sample of the taproot. The original accessions were evaluated in unreplicated field plots with a commercial hybrid ("ACH-14") containing high sucrose. Seed from each accession was included in a hybrid. Progeny were evaluated in replicated field plots. Individual roots with high sucrose concentration from lines with high sucrose were induced to flower and crossed in pairs within a line. Four additional cycles of mass selection were performed by paired crosses followed. High-sucrose individuals from desirable lines were selected in all selection cycles except the fifth. Fifth-cycle selection was based solely on line performance and a random sample of individuals from selected lines provided seed for the sixth cycle. Approximately 10 plants per line were increased each cycle. Root weight was added as a selection criterion in the last three cycles. Visual selection eliminated severely sprangled or colored roots.

Both F1011 (GP-134) and F1012 (GP-135) were selected from PI 266100, an accession from Poland. F1013 (GP-136) was selected from PI 169025, an accession that originated from Turkey, and F1014 (GP-137) from PI 355959 from Russia. F1012, F1013, and F1014 segregate for pink and green hypocotyl color; F1011 has pink hypocotyls. All four lines are diploid and produce multigerm seed. In the initial screening, the original four accessions were 15 to 22 kg⁻¹ lower in sucrose concentration than ACH-14. Comparisons of the parental accessions with F1013 and F1014 indicate that selection had increased sucrose concentration by =25 g kg⁻¹. Sucrose concentrations of the four germplasms were equal to the commercial hybrids used as checks. Root yield differences were not significant in all cases but, in general, yields were =75% of that observed for the commercial hybrids. F1011 and F1012 originated from the same parental accession, but exhibited contrasting performance throughout the selection and testing process. F1011 had consistently high sucrose concentration, while F1012 was consistently one of the higher-yielding lines. Root yields of F1014 were approximately equal to those observed for F1011 and less than F1013.

These lines are intended to increase the genetic diversity available for the development of populations and parental lines with improved agronomic performance. Breeder seed will be maintained by USDA-ARS and provided in quantities sufficient for reproduction upon written request to Sugarbeet Research, USDA-ARS, Northern Crop Science Laboratory, Fargo, ND 58015-5677.

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References and Notes


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REGISTRATION OF FIVE CHICKPEA GERMPLASM LINES RESISTANT TO ASCOCHYTA BLIGHT

Two kabuli (large, oval or pea-shaped, light-colored seeds) germplasm lines, ILC 200 (Reg. no. GP-103, PI 559359) and ILC 6482 (Reg. no. GP-104, PI 559360), and three desi (small, angular, dark-colored seeds) germplasm lines, ICC 4475 (Reg. no. GP-105, PI 559361), ICC 6328 (Reg. no. GP-106, PI 559362), and ICC 12004 (Reg. no. GP-107, PI 550363) of chickpea (Cicer arietinum L.), resistant to ascochyta blight [incited by Phoma rabiei (Pass.) Khune & J.N. Kapoor; = Mycosphaerella rabiei Kovachevski (teleomorph); syn. Ascochyta rabiei (Pass.) Labroussie], were released by the joint kabuli chickpea improvement program of ICARDA, Syria, and ICRISAT, India.