REGISTRATION OF US H9A AND US H9B SUGARBEET*
(Reg. Nos. 1 and 2)

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‘US H9A’ (Reg. No. 1) and ‘US H9B’ (Reg. No. 2) sugarbeet (Beta vulgaris L.) were developed by the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture. In 1968, they were released in cooperation with the California Agricultural Experiment Station, the Beet Sugar Development Foundation, and the California Beet Growers Association. These three-way top cross hybrid cultivars are produced by crossing cytoplasmic male-sterile F1 seed-bearing parents with a multigerm pollinator line. The parentage of US H9A is (C562 CMS × C569) × C13 and that of US H9B is (C562 CMS × C546) × C13. Although the pollinator for both hybrids is multigerm, the seed produced on the monogerm seed-bearing parents is monogerm.

US H9A and US H9B possess moderate resistance to virus yellows, a major disease of sugarbeet in California and Arizona. In the testing program the US H9 hybrids were compared with ‘US H7’, a monogerm hybrid cultivar that lacks yellows resistance. Yield losses from yellows averaged 27% for US H9A, 28% for US H9B, and 40% for US H7. The US H9 hybrids are bolting resistant and can be used for early planting in most sugarbeet growing districts of California. They also possess moderate curly top and downy mildew resistance.

The US H9 hybrids were thoroughly evaluated over a 5-year period by the Plant Science Research Division and the California sugar companies. In 36 tests grown under conditions of moderate to severe yellows, US H9A produced an average 29% higher sugar yield than did US H7. In the same tests, US H9B produced a sugar yield 22% higher than that of US H7. In 33 tests under light yellows infection, US H9A yielded 11% higher than US H7 and in 23 tests US H9B yielded 8% higher. The sucrose concentration of the US H9 hybrids was similar to that of US H7 in tests with light yellows infection and slightly higher in tests severely infected with yellows. Performance data and a description of the cultivars have been published.

The US H9 hybrids are recommended for use in all sugarbeet growing areas of California except for areas subject to the Cercospora leaf spot disease. Breeder seed of the parental lines is maintained at the U.S. Agricultural Research Station, P. O. Box 5098, Salinas, California.

REGISTRATION OF US H20 SUGARBEET*
(Reg. No. 5)

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‘US H20’ sugarbeet (Beta vulgaris L.) was developed by the Plant Science Research Division, Agricultural Research Service, U.S. Department of Agriculture; Sugar Development Foundation; and Farmers & Manufacturers Beet Sugar Association. When infected with virus yellows, US H20 exceeded the present standard variety, ‘US H9B’, in sugar yield. A trend also exists towards higher sucrose concentration, but usually the difference in yield between hybrids was not statistically significant. The US H20 hybrids are superior in the US H10 hybrids compared with ‘US H9B’ in sugar yield.

The new hybrids are recommended for use in the sugarbeet growing areas of California and Arizona subject to the Cercospora leaf spot disease. Breeder seed of the parental lines is maintained at the U.S. Agricultural Research Station, P. O. Box 5098, Salinas, California.

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This cultivar possesses moderate resistance to black root disease (Cercospora beticola Sacc.), to black root rot (Pythium ultimum Trow.), to curly-top virus, and to to black root disease.

In 5 years of testing in the Great Lakes Region, US H20 exceeded the standard cultivar by 5 to 8%. Other tests were conducted in irrigated districts along the Rocky Mountains where leaf spot and curly top are not a factor, and in the Rocky Mountain States. In these tests US H20 also exceeded the standard variety. In tests with severe leaf spot or curly top it was not outstanding, but it was superior in tests with both diseases and in tests that were not outstanding. US H20 was released in 1967 and is recommended for use in sugarbeet districts of the Great Lakes region and in irrigated districts east of the Rocky Mountains subject to simultaneous attacks of Cercospora leaf spot and black root disease.