REGISTRATION OF EL44 AND EL44CMS
SUGARBEET PARENTAL LINESt
(Reg. Nos. PL19 and PL20)
G.J. Hogaboam and C. L. Schneider2

SUGARBEET (Beta vulgaris L.) parental line EL44 and its cyto-
plasmic male sterile (CMS) equivalent, EL44CMS, were devel-
oped by ARS, USDA, in cooperation with the Michigan Agric.
Exp. Stn. from lines initiated by Dr. F. V. Owen and Dr. J. Clair
Theurer of the ARS, USDA, at Logan, Utah. The lines are
resistant to the curly top virus. Both of these lines are diploid (2
x = 18) and green hypocotyl.

EL44 (Reg. No. PL19) is a monogerm, pollen-fertile main-
tainer line (type-O) of EL44CMS. The line was selected from
LI3 (a selection from SL129), 3 which was resistant to curly top
disease, and shows outstanding combining ability with lines of
East Lansing or Beltsville origin. EL44 represents a rigorous
selection for the characters which enhance pollen and seed pro-
duction including fullness of anthers, dehiscence of anthers, and
the number of functional flowers per unit of seed stalk.

EL44CMS (Reg. No. PL20) is the cytoplasmic male sterile
equivalent of EL44 and was selected for flower density per seed
stalk concurrently with its maintainer line.

Breeder seed is maintained by ARS, USDA, and will be pro-
vided to sugarbeet breeders in quantities sufficient for reproduc-
tion upon written request. Requests should be made to USDA,
ARS, Sugarbeets and Edible Legumes Research, P. O. Box
1633, East Lansing, MI 48823.

tRegistered by the Crop Sci. Soc. of Am. Cooperative investigation by
ARS, USDA; and the Michigan Agric. Exp. Stn. as Journal article No.

2Supervisory Research Agronomist and Research Plant Pathologist,
ARS, USDA, Michigan State Univ., East Lansing, MI 48823.

Sugarbeet (Reg. No. 5). Crop Sci. 11:942.

REGISTRATION OF EL40 SUGARBEET
PARENTAL LINE1
(Reg. No. PL21)
G.J. Hogaboam, R. C. Zielke, and C. L. Schneider2

SUGARBEET (Beta vulgaris L.) parental line EL40 was developed
by ARS, USDA in cooperation with the Farmers & Manufac-
turers Beet Sugar Association, and the Michigan Agric. Exp.
Stn. This multigerm line has resistance to Cercospora leaf spot
/incited by
Cercospora beticola Sacc.) and black root (incited
Aphanomyces cochlioides Drechs.). Line EL40 traces back to a sin-
gle root known as 02 clone. The line is self-sterile but sib-fertile
and is characterized by a large root, small crown, rather fine
petioles, and small crinkled leaves. EL40 has shown excellent
specific combining ability for yield. Specific hybrids with this line
as a male parent have excellent leaf spot resistance in central
Michigan and are generally higher in sucrose than US H20, the
present commercial cultivar.

Breeder seed is maintained by ARS, USDA, Sugarbeet
Investigations, P. O. Box 1633, East Lansing, MI 48823. Seed
will be provided to sugarbeet breeders in quantities sufficient for
reproduction upon written request.

~Registered by the Crop Sci. Soc. of Am. Cooperative investigation by
ARS, USDA; the Farmers & Manufacturers Beet Sugar Association;

2Supervisory research agronomist; formerly research agronomist (cur-
tently director of research, Farmers & Manufacturers Beet Sugar Assn.)
and research plant pathologist, ARS, USDA, Sugarbeets and Edible
Legumes Research, P.O. Box 1633, East Lansing, MI 48823.

REGISTRATION OF EL45/2 SUGARBEET
PARENTAL LINEl
(Reg. No. PL22)
G.J. Hogaboam and C. L. Schnelder2

SUGARBEET (Beta vulgaris L.) parental line EL45/2 was developed
by ARS, USDA, in cooperation with the Michigan Agric. Exp.
Stn. 

EL45/2 is a monogerm, type-O, selected for improved pollen
production in the EL45 line. EL45 was a selection from SL133
(1) to improve the seed and pollen production ability. The last
selection for pollen production was made in a seed field severely
infested with
Phoma betae.

EL45 is resistant to curly top and has
excellent specific combining ability for yield.

Breeder seed is maintained by ARS, USDA, Sugarbeet
Investigations, P. O. Box 1633, East Lansing, MI 48823. Seed
will be provided to sugarbeet breeders in quantities sufficient for
reproduction upon written request.

1Registered by
the
Crop Sci. Soc. of Am. Cooperative investigation by
ARS, USDA and the Michigan Agric. Exp. Stn. as Journal article No.

2Supervisory research agronomist and plant pathologist, ARS, USDA,
Sugarbeets and Edible Legumes Research, P. O. Box 1633, East Lan-
sing, MI 48823.

3Coe, Gerald E. and George J. Hogaboam. 1971. Registration of US
H20 Sugarbeet (Reg. No. 5). Crop Sci. 11:942.

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