REGISTRATION OF SOUTH AFRICAN
PHOTOPERIOD INSSENSITIVE MAIZE
COMPOSITES I, II, AND III
(Reg. No. GP 90 to GP 92)

D. E. Alexander and John Spencer*

PHOTOPERIOD INSSENSITIVE COMPOSITE I (Reg. No. 90)

Segregating populations of tropical and US-South African material were selected for photoperiod insensitivity. The earlier-flowering segregants were random-mated followed by several generations of selection for insensitivity. Mass selection for lodging and ear rots was carried out for eight generations. Components of the composite are listed below.

Photoperiod Sensitive Strains

11 Mex 44—Inbred from Pepitilla, a central Mexican flint, developed in Zimbabwe. Source of HtN.
Eto Blanco—A white flint O.P. variety belonging to the Coastal tropical flint complex. Components: Colombian races Comun and Chococeno, Venezuela Syn. 1, plus numerous inbreds from Mexico, Puerto Rico, Cuba, Venezuela, Brazil, Argentina and U.S.A.
Teosinte Pool—Teosinte × several South African and U.S. elite lines selected for corn-like phenotype and prolificacy.
Sintetico Cristalino—Brazilian material. Uncertain identity.
Blanco Comun—A Colombian flint complex.
M162W—Inbred derived from K64r × B1138T (T designates a line originating from Teko, A South African Yellow Dent.)
M1367—[(B1138T × 670T) Cuba 40] B1138T × Cuba 40. Cuba 40 is a coastal tropical flint.
M848W—A derivative of WF9 HtN × E2621 P. E2621 is a line from Natal Potchefstroom Pearl having polygenic resistance to H. turricum.
L188Y—A derivative of (K4 × B670T) Cuba 40.

Photoperiod Insensitive Strains

Long Ear Synthetic-Origin unknown
C103
B756T—A Teko Yellow inbred.
Ms57—W10 × Oh40B derivative.
L141Y—A derivative of (K4 × B670T) Cuba 9 (Cuba 9 is a tropical population).
Oh45 Ht—A South African Ht version. Allele undetermined.
B1138T—A Teko Yellow inbred.
M60Y—Hy2 × A708H derivative. A708H is a South African Hickory King inbred.
B616T—A Teko Yellow inbred.
F289WT—A white inbred from Teko.
M83Y—A derivative of B756T × Natal Hickory King. B756T is a Teko Yellow inbred.
F2834T—A Teko Yellow inbred.
WF9R—An HtN version.
Mo12—WF9 × Mo22 derivative.
Unequal amounts of each of the strains entered the synthetic. Approximately 32% arose from tropical, 44% from South African, and 24% from United States sources.

PHOTOPERIOD INSSENSITIVE COMPOSITE II

Six reasonably photoperiod insensitive tropical populations (Flint Composite, Perola Piraciacaba, Narino 330/Peru 330, Cuba 40, Hawaii 5, SLP164, Comporto Flint) were selected for photoperiod insensitivity. The earlier-flowering segregants were random-mated followed by several generations of selection for insensitivity. Mass selection for lodging and ear rots was carried out for eight generations. Components of the composite are listed below.

Photoperiod Sensitive Strains

Prona 112—Inbred from Prona 112, a coastal tropical flint, developed in Zimbabwe. Source of HtN.
HL 2—Inbred from HL 2, a coastal tropical flint, developed in Zimbabwe. Source of HtN.
Hickory King—Inbred from the Syn. 1, plus numerous inbreds from Mexico, Puerto Rico, Cuba, Venezuela, Brazil, Argentina and U.S.A.
Teosinte pool (maize × teosinte segregating for maize-like qualities and prolificacy).

Photoperiod Insensitive Strains

Cuba 40, Hawaii 5, SLP164, Comporto Flint—A forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume, was developed and released in 1979 as a long-lived forage legume.