BGS 371, Male sterile genetic 16, msg16

Stock number: BGS 371
Locus name: Male sterile genetic 16
Locus symbol: msg16

Previous nomenclature and gene symbolization:
Male sterile 16 = ms16 (7).

Inheritance:
Monofactorial recessive (6).
Located in chromosome 5HS (3, 7); msg16.co is 8.0 to 15.0 cM distal from the breakpoint in translocation stock T2-7a (10, 11); the plant of the Bowman backcross-derived line for msg16.co stock, BW550, evaluated for SNP markers did not have any deviant markers in 5H from those of Bowman (2).

Description:
Selfing - none (4, 6).
Outcrossing - complete female fertility (6).
Stamens - anthers are almost equal in size to fertile sibs, stomium present, and filament elongation (6, 12).
Pollen - partial staining (15 to 35%) from both plants grown under field and greenhouse conditions, normal-appearing grains occur in some samples (12). Pollen appears immature based on staining with Fast Blue B, grains lack a pore or aperture, the exine is thinner, not distinctly two-layered, and bears fewer spicules than normal pollen (1). Tapetal tissue degeneration was observed at the free microspore stage (9).

Origin of mutant:
A spontaneous mutant in Betzes (PI 129430) (6).

Mutational events:
msg16.co (MSS065, GSHO 1816) in Betzes (PI 129430) (6, 8); msg16.bi (MSS323) in Betzes (4, 5, 8).

Mutant used for description and seed stocks:
msg16.co (GSHO 1816) in Betzes; msg16.co in Bowman (PI 483237)*7 (GSHO 2116, BW550, NGB 24129).

References:


Prepared:

Revised: