

Report of the Subcommittee for Germplasm Releases

The following germplasms were released since the 2003 report:

<u>Release</u>	<u>Source</u>	<u>Comments</u>
Inbreds:		
B117	(B97 x B99)-024-1-1-2-1-1	Dark green, upright leaves, 12 rows of flinty kernels on small tapering ears with pink cobs. Vigorous plants with good GCA with BSSS lines.
B118	(B97 x B99)-024-1-1-2-1-2	Similar to B117 except B118 has lower ear placement and flowers 2.5 days earlier than B117.
B119	BS13(S)C7-008-1-1-1-1	Dark green, upright leaves with large tapering ears with 16 kernel rows of large yellow starchy kernels on pink cobs.
B120	BSCB1(R)C12-6826	Plant and ear heights similar to B73 and Mo17. B120 has flinty kernels on short ears with 14 to 16 kernel rows, red silks, and pink cobs. Good GCA with BSSS lines.
B121	BS13(S)C6-7884	Dark green plant color with low ear placement with soft dent kernels on average size ears. Tends to have poor root strength as a line and in crosses. Good GCA.
B122	BSKRL2(HI)C0-7203-3-2-01-01-03-B-B (02SKRL:B4:8620)	B122 was derived from a narrow base synthetic (BSKRL2) composed of the five inbreds B90, B91, B95, B97, and B99. B122 has performed well on commercial tester inbreds from the stiff stalk heterotic pattern. It has better or comparable dry down, improved root and stalk lodging, and equivalent or better yield (depending on the tester) than comparable commercial checks.
B123	BSKRL2(HI)C0-7314-2-1-01-01-01-B-B (02SKRL:B4:8635)	B123 was derived from a narrow base synthetic (BSKRL2) composed of the five inbreds B90, B91, B95, B97, and B99. B123 has performed well on commercial tester inbreds (particularly SGI912) from the stiff stalk heterotic pattern. It has better or comparable dry down, improved root and stalk lodging, and equivalent or better yield (depending on the tester) than comparable commercial checks.
B124	BSKRL2(HI)C0-7370-2-2-02-01-02-B-B (02SKRL:B4:8650)	B124 was derived from a narrow base synthetic (BSKRL2) composed of the five inbreds B90, B91, B95, B97, and B99. B124 has performed well on commercial tester inbreds (particularly SGI912) from the stiff stalk heterotic pattern. B124 has shown a susceptibility to root lodging, but did show strong consistent yield on SGI912 winning in all 10 locations in 2002. In crosses with SGI912, B124 ranked 11 for grain yield (12 bu/ac less than the top commercial check).
B125	BSKRL2(HI)C0-7383-3-2-01-01-03-B-B (02SKRL:B4:8665)	B125 was derived from a narrow base synthetic (BSKRL2) composed of the five inbreds B90, B91, B95, B97, and B99. B125 has performed well on commercial tester inbreds from the stiff stalk heterotic pattern and seems to perform well with a broader range of testers than B122, B123, or B124. B125 has had outstanding resistance to root and stalk lodging and excellent dry down at harvest. When crosses with SGI890, B125 ranked 3 overall in the test for grain yield and was in the bottom 1/3 driest for grain moisture.

BPM2	BSPM2C1	Yellow-kernel popcorn inbred line derived from developmental material of BSPM2C1, a mushroom popping breeding synthetic released from Iowa State University. In 2002, BPM2 had a kernels-per-10 gram count (k/10g) of 65 while HP72-11 had a k/10g of 94 and BPM1 had 59 k/10g. Its maturity is similar to BPM1, being just a few days earlier than HP72-11. It is dent sterile and presumed to carry Ga1. In 2002, on a line per se basis, it rated 90% mushroom flakes while BPM1 rated only 75% mushroom flakes. BPM2 can be a source for increasing the percentage of mushroom flakes in popcorn hybrids.
CGR01	((B93 x NK2555) x NK2555)-B-2-7-1-1	Yellow dent-type, red cobbled inbred line, that flowers in ~81 days. Tested on LH198, LH185, LH304, and LH295. Performs better on non-SS types.
CGR02	(CG44x(MF4xP1247)-3)-B-2-1-1-1	Yellow dent-type, red cobbled inbred line, that flowers in ~81 days. Tested on LH198, LH185, LH304, and LH295. Good general combining ability.
CGR03	((B100 x NK2555) x NK2555)-B-1-5-1-1	Yellow dent-type, red cobbled inbred line, that flowers in ~81 days. Tested on LH198, LH185, LH304, and LH295. Performs better on SS types.
CGR04	(B93 x NK2555)-B-3-2-1-1	Yellow dent-type, red cobbled inbred line, that flowers in ~81 days. Tested on LH198, LH185, LH304, and LH295. Performs better on non-SS types.
CGR05	(Cargill5677 x CG103)-B-1-4-1-1	Yellow dent-type, redish pericarp, white cobbled inbred line, that flowers in ~81 days. Tested on LH198, LH185, LH304, and LH295. Performs better on SS types.
CGR06	((Cargill5677xCG EliteB C4S3)xCargill5677)-B-2-4-1-1	Yellow dent-type, red cobbled inbred line, that flowers in ~79 days. Evidence of susceptibility to kernel red streaking. Tested on LH198, LH185, LH304, and LH295. Good general combining ability.
CG110	(CCGP A C2 x NK2555)	Yellow dent-type, red cobbled inbred line, that flowers in ~69 days. Tested on CG60/CG62 (Iodent), CG102 (SS type), LH162, MBS1236, LH177/LH176, and an early B37-type. Performed best on early Iodents and LH177/LH176.
CG111	(CCGP B C2 x NK2555)	Yellow dent-type, white cobbled inbred line, that flowers in ~68 days. Tested on CG60/CG62 (Iodent), MBS1236, LH177/LH176, and an early B37-type. Good general combining ability.
CG112	(CG SynA x Pioneer3475)	Sister-line of CG113, yellow dent-type, white cobbled inbred line, that flowers in ~69 days. Tested on CG60/CG62 (Iodent), CG102 (SS type), LH162, MBS1236, LH177/LH176, and MBS4310. Performed best on LH162 and LH177/LH176.
CG113	(CG SynA x Pioneer3475)	Sister-line of CG112, yellow dent-type, white cobbled inbred line, that flowers in ~68 days. Tested on

		CG60/CG62 (Iodent), CG102 (SS type), LH162, MBS1236, LH177/LH176, and MBS4310. Performed best on LH177/LH176.
CG114	(CG102 x G-4193)	Yellow dent-type, white cobbled inbred line, that flowers in ~72 days. Tested on CG60/CG62 (Iodent), MBS1236, LH177/LH176, and MBS4310. Performed best on non-SS types.
CG115(W)	(CG CBI C3 x Pioneer3876)	White semi dent-type, white cobbled inbred line, that flowers in ~71 days. Novel y1 mutation arose in CG CBI S2 line, p11 allele is not susceptible to purple kernel streaking (PKS), excellent stalk and root quality. Tested on CG60/CG62 (Iodent), MBS1236, LH177/LH176, and MBS4310. Just missed the performance cut-off, however it is an extremely early white inbred line with excellent plant and kernel characteristics.
GEMS-0002	GEM population FS8A(S):S09	S ₃ maize germplasm demonstrates good general combining ability with 'Lancaster Sure-Crop' related testers. Average yield of testcrosses was 95% of the mean of commercial check hybrids. Moisture content of the testcrosses was consistently about 2 points below the average of check entries, and stalk lodging was about equal. The line flowers approximately one week before B73 and has smaller plant stature with ears borne at mid-plant height. Semi-flinty kernels are dark yellow to orange.
Mo48	NC33 × B52	Yellow dent type, white cobbled, flowers in ~69 days. Tested on B98 and Mo17. Yield on the latter testcross not different than B73 x Mo17. Highly resistant to first and second generation European corn borer.
Mo49	'Mo ECB selection 1' through 'Mo ECB selection 6' crossed in all combinations to three exotic Cargill populations: Cargill 4, Mexico 2, and Mexico 3	Yellow dent type, white cobbled, flowers in ~65 days. Tested on B98 and Mo17. Yield on the latter testcross lower than B73 x Mo17. Highly resistant to first and second generation European corn borer.
Tx772	BC1 (Argentine line 4521/Rust Resistance source)/4521).	Jointly released with Carlos F. Llorente from Argentina. Argentine line that combines well with SS types. Yellow-orange grain colour, hard endosperm, white cob, short dark green plants, high protein, low susceptibility to aflatoxin.
Tx114	(K55/B73 ³)	Tx114 is a B73 derivative with white grains and cobs, Southern adaptation and combines well with Non-SS types. Tx114 flowers ~ 1 to 2 days later and has harder endosperm than B73. Susceptible to aflatoxin.
Tx110	(Tx61M x Tx6252 ⁴)	White grain and cobs, Southern adaptation, combines well with Non-SS and subtropical and tropical white lines.
Tx745	Pioneer P3165	Tx745 is adapted to Southern U.S. areas, has yellow grains, white cobs and excellent stalk quality. Tx745 flowers ~ 1 day later than B73. semident light yellow. Plants are short with low ear placement and small tassels.
Tx732	(Tx6252xB73)	Tx732 is a yellow line with white cobs and Southern

adaptation that combines well with both Non-SS types and tropical/subtropical lines. Plants are shorter than B73 with intermediate ear placement. Susceptible to aflatoxin.

Tx770	(Mo17xTx601)	Tx770 is adapted to Southern U.S. areas and combines well with both SS and non-SS types. Tx770 has yellow semiflint grain, white cobs, good stalk quality, erect few branches tassel, and and flowers 3-4 days later than B73.
Tx714	(K55/B73 ³)	Tx714 is a B73 that combines well with Non-SS types. Major differences with B73 are that Tx714 has a white cob and harder endosperm, is more vigorous, has Southern adaptation, and yields more than B73, and ~ 1 to 2 days later.
W601S	Wisconsin Quality Synthetic C0	Selection was initiated at the S2 stage of inbred development in topcrosses to LH119 and at the S5 stage to inbreds LH198 and HC33. The topcrosses were selected on the basis of high forage yield, low neutral detergent fiber (NDF), high in vitro true digestibility (IVD), high in vitro NDF digestibility (NDFD), high protein, high starch, and, as a result, high milk production potential. Kernels are flinty and white. Cobs are dark red. Pollen and silk dates are about 2-3 days earlier than Mo17 and the same as LH227.
W602S	Wisconsin Quality Synthetic C1	Selection was initiated at the S2 stage of inbred development in topcrosses to LH198 and at the S5 stage to inbreds LH198 and HC33. The topcrosses were selected for high milk production potential as described for W601S. Kernels are yellow dent. Cobs are pale red. Pollen and silk dates are about 3-4 days earlier than Mo17 and 1-2 days later than LH295.
W603S	Wisconsin Quality Synthetic C1	Selection was initiated at the S2 stage of inbred development in topcrosses to LH198 and at the S5 stage to inbreds LH198 and HC33. The topcrosses were selected for high milk production potential as described for W601S. Kernels are pale yellow semi-flint. Cobs are red. Pollen and silk dates are about 4-5 days earlier than Mo17 and the same as LH295.
W604S	Wisconsin Quality Synthetic C1	Selection was initiated at the S2 stage of inbred development in topcrosses to LH198 and at the S5 stage to inbreds LH198 and HC33. The topcrosses were selected for high milk production potential as described for W601S. Kernels are pale yellow dent. Cobs are red. Pollen and silk dates are about 3-4 days earlier than Mo17 and 1-2 days later than LH295.

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