BIG INVITED PAPER:

PEDIGREES OF DRY BEAN CULTIVARS, LINES AND PIs

Phil McClean¹ and Jim Myers²

¹Dept. of Crop and Weed Sciences, North Dakota State University, Fargo, ND 58105
²Research and Extension Center, University of Idaho, Kimberly, ID 83341

The pedigrees were obtained from Experiment Station announcements, registration publications, PVP applications and the publications The Vegetables of New York and Descriptive List of Vegetable Varieties. We would like to acknowledge the following individuals for providing pedigree information and proofreading the list: Mark Brick, Doug Burke, Dermot Coyne, George Freytag, Paul Gepts, Ken Grafton, Don Helms, Jim Kelly, Soon Park, Roger Sansted and Matt Silbernagel.

SMALL WHITE, NAVY, PEA BEAN

<table>
<thead>
<tr>
<th>Cultivar</th>
<th>Pedigree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-I</td>
<td>Upland*8/PI 326418</td>
</tr>
<tr>
<td>Albion</td>
<td>Seafarer/Turkish White</td>
</tr>
<tr>
<td>Aurora</td>
<td>Black Turtle Soup/Cornell 49-242</td>
</tr>
<tr>
<td>Bonita</td>
<td>12 generation selection of native strain</td>
</tr>
<tr>
<td>Bonus</td>
<td>Red Mex UI 35 selection/Calproof 38</td>
</tr>
<tr>
<td>C-20</td>
<td>Jamapa/NEP-2//W-20/Kentwood</td>
</tr>
<tr>
<td>Calproof 38</td>
<td>small flat bean with BCMV resistance</td>
</tr>
<tr>
<td>Centralia</td>
<td>Ex-Rico 23 BC₆-are/Harokent</td>
</tr>
<tr>
<td>Clipper</td>
<td>Burbank/Beauty</td>
</tr>
<tr>
<td>Crawford</td>
<td>old navy bean variety</td>
</tr>
<tr>
<td>Crestwood</td>
<td>Ex Rico 23*3/PI 326418</td>
</tr>
<tr>
<td>CSW-73-11</td>
<td>Small White 53*3/Meader #1</td>
</tr>
<tr>
<td>Dresden</td>
<td>Fleetwood*3/Fleetwood/PI 326418</td>
</tr>
<tr>
<td>Early Prolific</td>
<td>pure line derived from a land race</td>
</tr>
<tr>
<td>Ex-Rico 23</td>
<td>Ex-Rico 23*6/Ex-Rico 23/PI 326418</td>
</tr>
<tr>
<td>BC₆-are</td>
<td></td>
</tr>
<tr>
<td>Fleetwood</td>
<td>Sanilac/California Small White</td>
</tr>
<tr>
<td>Gratiot</td>
<td>Sanilac*4/Sanilac//Michelite Bush X-Ray/B1788</td>
</tr>
<tr>
<td>Harkell</td>
<td>Monroe/4411-88C</td>
</tr>
<tr>
<td>Harofleet</td>
<td>Fleetwood*6/Fleetwood/PI 326418</td>
</tr>
<tr>
<td>Harokent</td>
<td>Kentwood*6/Kentwood/PI 326418</td>
</tr>
<tr>
<td>Hyden</td>
<td>Aurora/UI 114</td>
</tr>
<tr>
<td>Kentwood</td>
<td>Sanilac/Clipper</td>
</tr>
<tr>
<td>ICA-Bunsi</td>
<td>Magdalena/Japon 3 (apparently equals Ex-Rico 23)</td>
</tr>
<tr>
<td>L-226-10</td>
<td>MSU N80051/MSU N81009</td>
</tr>
<tr>
<td>L-227-1</td>
<td>MSU N80051/MSU X80101</td>
</tr>
<tr>
<td>Laker</td>
<td>ICA-Pijao/NEP-2//W-20/Kentwood</td>
</tr>
<tr>
<td>Mayflower</td>
<td>NEP-2/Black Turtle Soup//2W-33-2/3/C-20</td>
</tr>
<tr>
<td>Meader #1</td>
<td>Small White 53/Prestige #1</td>
</tr>
<tr>
<td>Michelite</td>
<td>Robust/Early Prolific</td>
</tr>
<tr>
<td>Michelite-62</td>
<td>selection from Michelite; resistant to Bean Common Mosaic virus race 1</td>
</tr>
<tr>
<td>Michelite X-Ray</td>
<td>X-ray mutant of Michelite</td>
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### PINTO

<table>
<thead>
<tr>
<th>Variety</th>
<th>Description</th>
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<tr>
<td>Bel 4-844</td>
<td>Fiesta/5/Fiesta/4/Olathe/3/Olathe/2/Olathe/CNC</td>
</tr>
<tr>
<td>Bel 4-2537</td>
<td>Fiesta/6/Fiesta/5/Fiesta/4/Olathe/3/Olathe/2/Olathe/CNC</td>
</tr>
<tr>
<td>Beldak RR-1</td>
<td>Bel 4-844/3/Bel-4-844/Olathe/Mex 235/4/Bel 4-2537</td>
</tr>
<tr>
<td>Beldak RR-2</td>
<td>Bel 4-844/3/Bel-4-844/Olathe/Mex 235/4/Bel 4-2537</td>
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<td>Bel 4-844/3/Bel-4-844/Olathe/Mex 235/4/Bel 4-2537</td>
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Bill Z
Cahone A56244-39/UI III/A56244-8/3/Yellow Jacket
Columbia Pinto #5/GN UI 123/UI 78
Common Pinto land race of pinto
Fiesta UI 111/a Great Northern cultivar/UI 111
gh 196-2 UI 114/UI 114/PI 203598/3/UI 114/4/Red Mex UI 35/
PI 203598/5/red-seeded early maturing Japanese bush bean
Holberg Viva/3/UI 114/UI 114/PI 203958
JM-126 NW 410/NEP 2/NW 410
Luna a cross among Golden Gate Wax, UI 123, Pinto #4, UI 78
Navajo USDA 2207/NM 56-778
Nodak Red Mex UI 35//Red Mex UI 35/PI 203958/3/Royal Red
Kidney/4/GN 1140
NW-410 Sutter Pink/UI 114
NW-590 Red Mex UI 35//PI 203958/Red Mex UI 35/3/UI 114
Ourary Sanilac/UI 111/4/Dark Red Kidney/3/Pinto #4/4500/Pinto #5
Othello NW-410/Victor/Aurora
Pindak red-seeded Japanese bush bean (name lost)/3/UI 114/
PI 203958/UI 114
Pinto #4 #780/Idaho Pinto
Pinto #5 #780/Idaho Pinto
RS 101 single plant mutant found in Olathe; appears to be like
CSU 81-12034
UI 72 Red Mex UI 34/Common Pinto
UI 78 Red Mex UI 34/Common Pinto
UI 111 Red Mex UI 34/Common Pinto
UI 114 UI 111/GN J-378
UI 126 R764/UI 114
UI 129 volunteer selection from a previous year’s breeding nursery
Wyo 167 Wyo 166/UI 114
3526 A56244-39/UI 111/A56244-8
4500 Pinto #4/3/Golden Gate Wax//Idaho Pinto/Pinto #5

**GREAT NORTHERN**

Belneb-RR-1 GN Harris/6/GN Harris/5/GN Harris/4/GN 1140/GN 1140/
B-190/3/Olathe
Belneb-RR-2 GN Harris/6/GN Harris/5/GN Harris/4/GN 1140/GN 1140/
B-190/3/Olathe
Bulgarian White a large, white-seeded breeding line from U of Nebraska
Common Great Northern
Northern DB 620341 selection from PI 282096
Emerson PI 165078/GN 1140
GN 1140 Pinto #5/GN UI 123
GN CT 32 curly top resistant Great Northern of unknown parentage
GN Harris bulk of early maturing GN Valley plants
GN J-378 GN UI 123/GN CT 32
GN Montana #1 selection from Great Northern field run
GN Montana #5 selection from Great Northern field run
GN Nebraska #1 P. vulgaris cv. Montanas/P. acutifolius var. latifolius
cv. Tepary
GN Star GN Nebraska #1 sel.27*6/GN Nebraska #1 sel. 27/PI 165078
GN UI K0425 GN UI 61/R544//Emerson
GN UI 1  selection from Common Great Northern
GN UI 16  GN UI 59/Common Red Mexican
GN UI 31  GN UI 59/Common Red Mexican
GN UI 56  selection from Common Great Northern
GN UI 59  selection from Common Great Northern
GN UI 60  GN UI 61/R 221
GN UI 61  GN UI 59/Common Red Mexican
GN UI 81  selection from Common Great Northern
GN UI 123 selection from Common Great Northern
GN Valley  GN Nebraska #1 sel. 27*6/GN Nebraska #1 sel. 27/GN 1140
JM-24  NW-410///NW-410/NEP-2
Jules  GN Nebraska #1 sel. 27/GN 1140
Snowball  DB 620341/3/Bulgarian White/GN 1140/DB 620341
Tara  GN Nebraska #1 sel. 27/GN 1140

RED AND RED MEXICAN

Big Bend  Liborino/Red Mex UI 34
Borinquen  10 generation selection of native red bean
Common Red  land race of red Mexican
Mexican
Coulee  Red Mex UI 34/a pinto type//Red Mex UI 34
Liborino  Landrace from Colombia, SA
NW-59  PI 203958/Red Mex UI 35//DRK 801/3/Sutter Pink
NW-63  PI 203958/Red Mex UI 35//DRK 801/3/Sutter Pink
Red Mex UI 3  GN UI 1/Common Red Mexican
Red Mex UI 34  GN UI 1/Common Red Mexican
Red Mex UI 35  Red Mex UI 34/GN UI 31
Red Mex UI 36  Red Mex UI 34/GN UI 56
Red Mex UI 37  Red Mex UI 34/GN UI 56
Red Mex UI 42  Red Mex UI 36/R-370
Ruddy  G01562/Redkloud
Rufus  PI 203958/Red Mex UI 35//PI 203958

KIDNEY

B23  USDA strain
California Dark  Michigan Dark Red Kidney/Maui Red Kidney
Red Kidney
Red Kidney 82  Kidney/3/RedKote
California Early  Sacramento/Red Kidney/RedKote
Dark Red Kidney
California Light  old landrace of kidney
Red Kidney
Charlevoix  Dark Red Kidney/Brazilian Red Kidney
Dark Red Kidney  old variety from Michigan
Isabella  Redkloud/Mecosta
Kardinal Red  Manitou/4/UI 114/UI 112/PI 203958/3/Jacob’s Cattle
Kidney
Karniakin Red  Royal Red Kidney/Redkote
Kidney
K-59 Red Kidney  Mecosta/Royal Red Kidney/Redkote
Lark  bulk of 12 selections out of Redkloud
Lassen  white-seeded mutants of Sacramento
Linden
Maui Red Kidney
Mecosta
Montcalm
Red Kidney
Red Kidney M
Redkloud
RedKote
Royal Red Kidney
Sacramento
3M-150
3M-152
27-R

BLACK
B-190
Black Magic
Black Turtle Soup
CNC
Domino
Ebony
ICA-Pijao
Jamapa
La Vega
Loop
Michoacan 68
Midnight
Rico
Rico-23
San Fernando
2B-5-1
50600

CRANBERRY
Cardinal
Cran 74
Cran 75
Cran 1466
Cranberry
Cranberry UI 50
Cranberry UI 51
Michigan Improved Cranberry
Pilgrim
Taylor Cranberry

PINK
Early Pink
Early Pink 38 selection from Early Pink and Seventy Day Pink
Gloria Red Mex UI 35/PI 203958//virus-resistant red-seeded bush line/3/Sutter Pink
Harold Victor/Aurora
Roza Red Mex UI 35/PI 203958//virus-resistant red-seeded bush line/3/Sutter Pink
Salinas selection from pink beans
Standard Pink 38 selection from Standard Pink
Sutter Pink Standard Pink/Early Pink
Victor Red Mex UI 35/PI 203958//Red Mex UI 35/3/Sutter Pink/
Viva Red Mex UI 35/PI 203958//Red Mex UI 35/3/Sutter Pink

OTHER

A56244 rust resistant introduction from Zaumeyer USDA program;
Are-Steuben Steuben*6//Steuben/PI 326418
Berna Ceka/Beka
DRK 801 California Dark Red Kidney/Red Mex UI 35
Golden Gate Wax garden bean
PI 165078 PI resistant to yellow, orange and purple strains of Corynebacterium faccumfaciens (bacterial wilt)
PI 203958 fusarium root-rot resistant plant introduction; commonly referred to as N203
R-221 selection from N203-4-10 which exhibits resistant to Fusarium root-rot
R-370 selection from N203-2-10 which exhibits resistance to late-maturing Chilean introduction with numerous pods and very small white seeds
PI 282057 plant introduction carrying the "ARE" gene which imparts resistance to the alpha, beta, gamma, delta and lambda races of C. lindemuthianum; Cornell 49-242 appears to be equivalent to this PI
PI 326418 white-seeded selection from fusarium root-rot resistant line 5MF67-1
R544 Topcrop bush snapbean carrying I gene
Wyo 166 interspecific hybrid;
3M-150 mixture of solid and pinto patterns on a kidney background
3M-152 Michoacan 68-B-1/27-R; a mixture of solid colors and pinto patterns on a kidney bean background
61-2942 single plant selection exhibiting striking upright growth habit among 25 black-seeded CIAT germplasm lines
70001 70002 70003 5MF67-1 Idaho breeding line resistant to Fusarium root-rot
61-2942 single plant selection exhibiting striking upright growth habit among 25 black-seeded CIAT germplasm lines
70001 70002 70003 5MF67-1 Idaho breeding line resistant to Fusarium root-rot