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PI 584514. Phaseolus vulgaris L.

Breeding. BELDAKMI-RUST RESISTANT-1. Pedigree - F5 from PX004/4/PX057/3/PX010*2//Fiesta*2/PI 151388. Similar to pinto bean cv. Sierra in erect, Type II plant habit. Rapid maturity derived from PX-line parents from North Dakota. Homozygous for monogenically inherited dominant rust resistance to all 65 available races of rust fungus derived from PI 151388 and produces a faint chlorotic reaction to some rust races and tiny sporulating uredinia with others. Also homozygous for a second resistance gene for many races derived from PX 057 and Olathe. Has recessive bc-1 2 gene for resistance to NL3, NL8, and NY15 strains of bean common mosaic virus. Seeds large, 35% heavier than Sierra and the largest of any pinto releases from Beltsville through 1994.

PI 584515. Phaseolus vulgaris L.

Breeding. BELDAKMI-RUST RESISTANT-2. Pedigree - F5 from PX057//Bel 1-2547-1/Bel 1-2545-1. Similar to pinto bean cv. Sierra in erect, Type II plant habit. Earliest harvest maturity of any of the first four BDM lines. Homozygous for monogenically inherited dominant rust resistance to all 65 available races of rust fungus that is derived from PI 151388 and/or PI 181996. Contains, but is not homozygous for a second rust resistance gene for many races from Olathe and PX057. Susceptible to bean common mosaic virus. Excellent pinto seed quality, size similar to slightly larger than Sierra.

PI 584516. Phaseolus vulgaris L.

Breeding. BELDAKMI-RUST RESISTANT-3. Pedigree - F5 from Sierra//Bel 1-2547-1/Bel 1-2545-1. Similar to pinto bean cv. Sierra in erect, Type II plant habit, but slightly earlier in maturity and produces taller plants. Homozygous for monogenically inherited dominant rust resistance to all 65 available races of the rust fungus derived from PI 151388 and/or PI 181996. Also contains a second gene for resistance to many but not all of the rust races. Susceptible to bean common mosaic virus. Good pinto seed quality and seed size slightly larger than Sierra.

PI 584517. Phaseolus vulgaris L.

Breeding. BELDAKMI-RUST RESISTANT-4. Pedigree - F4 from Sierra//Bel 1-2547-1/Bel 1-2545-1. Similar to pinto bean cv. Sierra in erect, Type II plant habit, but slightly earlier maturity and shorter plants than Sierra. Homozygous for monogenically inherited, dominant rust resistance to all 65 available races of the rust fungus derived from PI 151388 and/or PI 181996. No additional rust resistance genes but has recessive bc-1 gene for resistance to the NL8 strain of bean common mosaic virus. Better pinto seed quality than Sierra and slightly larger seeds than Sierra and BDM-RR-3.

PI 584518. Phaseolus vulgaris L.

Breeding. BELDAKMI-RUST RESISTANT-5. Pedigree - F4 from 87-039-34*2/Bel 2-2193. In Michigan superior to pinto bean cv. Sierra in producing more erect, Type II, earlier maturing, and higher yielding plant characteristics. Plants 25% shorter than Sierra and nearly 25% taller than 87-039-34. Homozygous for monogenically inherited, dominant rust resistance to all 65 available races of the rust fungus from PI 181996. Also homozygous for a second, independent, dominant rust resistance (for many races) gene from Olathe, through line 87-039-34. Homozygous for the I gene and a partially effective recessive gene for bean common mosaic virus resistance. Seeds larger than those of Sierra and Pinto 114, as large as 87-039-34, and of very good pinto quality.

PI 584519. Phaseolus vulgaris L.