SEMINIS DRY BEANS

From black to pinto, the Seminis lineup has the beans you need to be competitive in the field and successful in the plant. Our breeders are dedicated to developing dry bean varieties that provide consistent yield and performance, adaptability under a variety of growing conditions and improved processing traits that lead to a quality finished product.

Disease Abbreviations Key: A = Anthracnose (Colletotrichum lindemuthianum); AE = Aphanomyces root and hypocotyl rot (Aphanomyces euteiches); BCMV = Bean common mosaic (Bean common mosaic virus); R = Rust (Uromyces appendiculatus)

Key to Resistance Information:

R = Resistance. (The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Resistant varieties may exhibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.)

IR = Intermediate Resistance. (Varieties with an intermediate level of resistance to a specific pathogen or insect pest may perform substantially better than susceptible varieties when moderate to severe pathogen or pest pressure exists. These varieties may exhibit a great range of symptoms compared to resistant varieties when grown under similar conditions of moderate to sever pathogen or pest pressure.)

BLACK BEAN

BLACK VELVET

Black Velvet is an indeterminate black bean with a nice erect, upright indeterminate plant. It has main season maturity and has demonstrated consistently good yields. Its canned quality has been excellent.

Relative Days to Maturity: 100
Plant Type: Indeterminate, upright
Color: Dull black
Seeds/LB: 1,804
Disease Resistance: A, BCMV (R)

CRANBERRY

CHIANTI

Chianti is a cranberry bean that has shown excellent yields and canning quality throughout years of trials. **Chianti** has an upright indeterminate plant with 90-day maturity.

Relative Days to Maturity: 90
Plant Type: Indeterminate, short vine
Color: Red flecks on off-white
Seeds/LB: 746
Disease Resistance: BCMV (R)

CRANBERRY

ETNA

Etna is a cranberry bean with early maturity, high yield potential and a large seed size.

Relative Days to Maturity: 88
Plant Type: Determinate bush
Color: Red flecks on off-white
Seeds/LB: 794
Disease Resistance: BCMV (R)

CRANBERRY

HOOTER

Hooter is a late maturing cranberry variety with good color and size. **Hooter** yields well with or without irrigation, producing a larger size bean that is well-suited for the dry seed export.

Relative Days to Maturity: 98-100
Plant Type: Determinate bush
Color: Red flecks on off-white
Seeds/LB: 899
Disease Resistance: BCMV (R)

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KIDNEY, DARK RED

CABERNET

Cabernet is a dark-red kidney bean with mid-early maturity and consistently high canning quality. Its grain type is excellent and the determinate bush produces good yields with low levels of field loss during harvest. **Cabernet** is resistant to BCMV.

Relative Days to Maturity: 91
Plant Type: Determinate bush
Color: Dark-red
Seeds/LB: 889
Disease Resistance: BCMV (R)

KIDNEY, DARK RED

RED ROVER

Red Rover (EX 08520700) is a main season, dark-red kidney variety that offers resistance to Aphanomyces root rot. This resistance makes **Red Rover** a perfect fit for growers in Minnesota and Wisconsin who produce in light sandy irrigated soil. It produces an erect, determinate bush plant. **Red Rover** has good canned quality.

Relative Days to Maturity: 95
Plant Type: Determinate bush
Color: Dark-red
Seeds/LB: 1,042
Disease Resistance: AE, BCMV (R)

KIDNEY, LIGHT RED

PINK PANTHER

Pink Panther is a light-red kidney bean with excellent canning scores. Its early maturity and resistance to BCMV are also added benefits. **Pink Panther** yields very well and has a desirable plant type.

Relative Days to Maturity: 90
Plant Type: Determinate bush
Color: Pink to light red
Seeds/LB: 962
Disease Resistance: BCMV (R)

PINTO

MARIAH

Mariah (XP 08540800) is a full season pinto bean with an erect, short vine and has less breakage for better canned quality. **Mariah** has show good adaptation and high yields, not to mention superior seed weathering in comparison to other standard pinto varieties grown in the Red River Valley. **Mariah** is well suited for narrow rows and direct harvest.

Relative Days to Maturity: 93-97
Plant Type: Indeterminate, short vine
Color: Brown flecks on buff
Seeds/LB: 1,257
Disease Resistance: BCMV, R (R)

PINTO

MEDICINE HAT

Medicine Hat (XP 08550813) pinto bean is an early maturing, short-vine variety that has an upright plant. It has good seed weathering and less breakage for better canned quality. In Red River Valley trials, **Medicine Hat** has shown good adaptation and yield potential. It is well suited for narrow rows and direct harvest.

Relative Days to Maturity: 88-90
Plant Type: Indeterminate, short vine
Color: Brown flecks on buff
Seeds/LB: 1,140
Disease Resistance: BCMV, R (R)

PINTO

WINDBREAKER

Windbreaker is an upright, short-vine pinto bean that has produced consistently good yields, especially for the Red River Valley production area. **Windbreaker** ripens quickly and uniformly with reduced seed weathering. Try **Windbreaker** in narrow rows for direct harvest.

Relative Days to Maturity: 94-98
Plant Type: Indeterminate, short vine
Color: Brown flecks on buff
Seeds/LB: 1,076
Disease Resistance: BCMV, R (R)

The Mystery of High Yields - Solved with Clouseau

Resistance to Aphanomyces root rot • High yield potential
Maturity range of 90-95 days • Good canned quality

Clouseau (EX 08530714) is a main season, light-red kidney variety with Aphanomyces root rot resistance. The determinate bush is well-adapted to the sandy irrigated production areas of Minnesota, Wisconsin and Michigan. **Clouseau** has good canned quality.

Key to Resistance Information:

R = Resistance. (The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Resistant varieties may exhibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.)

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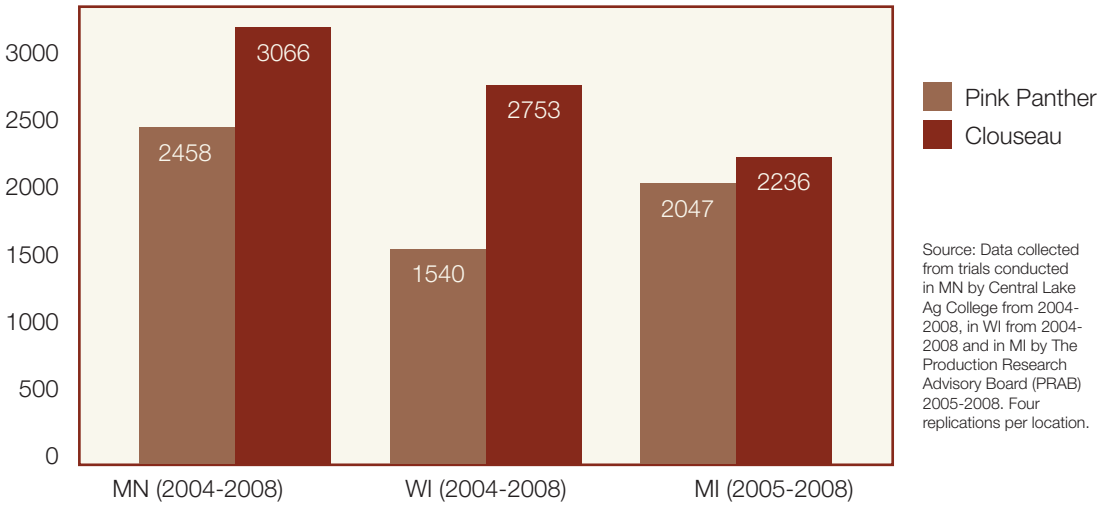
The Case for Clouseau

The key to Clouseau's high yield potential is its resistance to Aphanomyces root rot, which provides growers with an opportunity for increased yields over competing varieties. From 2004 to 2008, Seminis, in cooperation with local growers, conducted trials in predominately light, sandy soil under irrigation in Michigan, Minnesota and Wisconsin to collect data to demonstrate the additional benefits of **Clouseau** production. Here is how yield translates into grower benefit:

Clouseau and Pink Panther Yield Comparison (lb/acre)



Source: Data collected from trials conducted in MN by Central Lake Ag College from 2004-2008, in WI from 2004-2008 and in MI by The Production Research Advisory Board (PRAB) 2005-2008. Four replications per location.

Here is how **Clouseau** may affect your bottom line:

Yield Comparison (lb/acre)

	MN (04-08)	**WI** (04-08)	**MI** (05-08)	**Weighted Average**
Pink Panther	2458	1540	2047	2014
Clouseau	3066	2753	2236	2685
				670
				33% Clouseau yield advantage

Considering three possible pricing scenarios and four different seeding rates, here is how **Clouseau's** potential 33 percent yield advantage may translate into profitability:

Potential Additional Profitability to Grower per Acre*

Pricing Scenario	$0.30/lb.	$0.40/lb.	$0.50/lb.
Mkt. Price $/lb.	$0.30	$0.40	$0.50
Yield Advantage	x 670.00 lbs.	x 670.00 lbs.	x 670.00 lbs.
$/Acre Return	**$201.00**	**$268.00**	**$335.00**

Potential Additional Profitability to Grower per Pound of Seed*

Pricing Scenario		$0.30/lb.	$0.40/lb.	$0.50/lb.
Seeding Rate	80 lb/acre	$2.51/lb.	$3.35/lb.	$4.19/lb.
	90 lb/acre	$2.23/lb.	$2.98/lb.	$3.72/lb.
	100 lb/acre	$2.01/lb.	$2.68/lb.	$3.35/lb.
	110 lb/acre	$1.83/lb.	$2.44/lb.	$3.05/lb.

*Additional value to grower: The benefit to growers has been calculated based on three different pricing scenarios and four different seeding rate scenarios for light-red kidney beans in the United States and Canada. Pricing can be different in different regions and markets. They are subject to change for reasons that we do not control and we do not guarantee any price or profit. This is directional information to show product potential only.

For more information about **Clouseau** seed supply or other fine Seminis products, contact your Seminis Seed Licensee or the Seminis sales representative.

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Rich Maloney Canandaigua, NY (585) 233-4769
John Zink Chatham, Ontario, Canada (519) 351-7640

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Red Rover, Red Rover, Send High Yields Right Over

Resistance to Aphanomyces root rot • High yield potential
Maturity range of 90-95 days • Good canned quality

Red Rover (EX 08520700) is a main season, dark-red kidney variety that offers resistance to Aphanomyces root rot. This resistance makes **Red Rover** a perfect fit for growers in Minnesota and Wisconsin who produce in light sandy irrigated soil. Even in productions where Aphanomyces has not been a problem, **Red Rover** has displayed healthier roots and improved mineral nutrition. It produces an erect, determinate bush plant. **Red Rover** has good canned quality.

Key to Resistance Information:

R = Resistance. (The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Resistant varieties may exhibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.)

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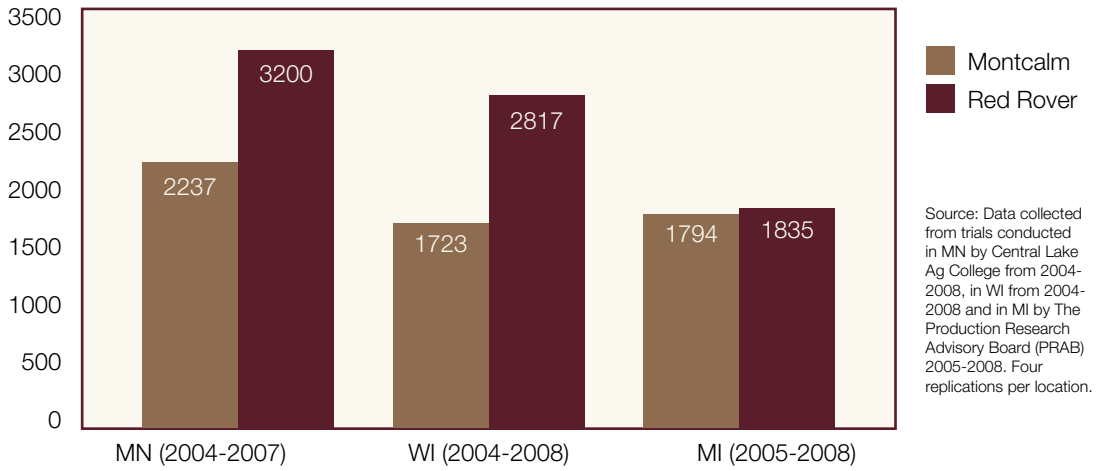
How Red Rover Works to Your Benefit

With resistance to Aphanomyces root rot, **Red Rover** provides growers with potential for increased yield over competing varieties. From 2004 to 2008, Seminis, in cooperation with local growers, conducted trials in predominately light, sandy soil under irrigation in Michigan, Minnesota and Wisconsin to collect data to demonstrate the additional benefits of **Red Rover** production. Here is how yield translates into grower benefit:

Red Rover and Montcalm Yield Comparison (lb/acre)



Source: Data collected from trials conducted in MN by Central Lake Ag College from 2004-2008, in WI from 2004-2008 and in MI by The Production Research Advisory Board (PRAB) 2005-2008. Four replications per location.

Here is how **Red Rover** may affect your bottom line:

Yield Comparison (lb./acre)

	MN (04-07)	**WI** (04-08)	**MI** (07-08)	**Weighted Average**
Montcalm	2237	1723	1794	1895.2
Red Rover	3200	2817	1835.3	2575.8
				680.6
				36% Red Rover yield advantage

Considering three possible pricing scenarios and four different seeding rates, here is how **Red Rover's** potential 36 percent yield advantage may translate into profitability:

Potential Additional Profitability to Grower per Acre*

Pricing Scenario	$0.30/lb.	$0.40/lb.	$0.50/lb.
Mkt. Price $/lb.	$0.30	$0.40	$0.50
Yield Advantage	x 680.6 lbs.	x 680.6 lbs.	x 680.6 lbs.
$/Acre Return	**$204.00**	**$272.00**	**$340.00**

Potential Additional Profitability to Grower per Pound of Seed*

Pricing Scenario		$0.30/lb.	$0.40/lb.	$0.50/lb.
Seeding Rate	80 lb/acre	$2.55/lb.	$3.40/lb.	$4.25/lb.
	90 lb/acre	$2.27/lb.	$3.02/lb.	$3.78/lb.
	100 lb/acre	$2.04/lb.	$2.72/lb.	$3.40/lb.
	110 lb/acre	$1.85/lb.	$2.47/lb.	$3.09/lb.

*Additional value to grower: The benefit to growers has been calculated based on three different pricing scenarios and four different seeding rate scenarios for dark-red kidney beans in the United States and Canada. Pricing can be different in different regions and markets. They are subject to change for reasons that we do not control and we do not guarantee any price or profit. This is directional information to show product potential only.

For more information about **Red Rover** seed supply or other fine Seminis products, contact your Seminis Seed Licensee or the Seminis sales representative.

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Rich Maloney Canandaigua, NY (585) 233-4769
John Zink Chatham, Ontario, Canada (519) 351-7640

MONSANTO

Mariah

Mariah. Not Just Another Pretty Name

There is nothing more beautiful than a great performance – and that's just what you'll get with **Mariah**.

- Full season pinto bean
- Well adapted with high yields
- Less breakage for better quality
- Resistant to bean common mosaic and rust

Mariah (XP 08540800) is a full season pinto bean with an erect, short vine. **Mariah** has less breakage for better canned quality. **Mariah** has shown good adaptation and high yields, not to mention superior seed weathering in comparison to other standard pinto varieties grown in the Red River Valley. **Mariah** is well suited for narrow rows and direct harvest.

Relative Days to Maturity	Plant Type	Color	Seeds/LB	Disease Resistance
93-97	Indeterminate, short vine	Brown flecks on buff	1,257	BCMV, R (R)

Disease Abbreviations Key:

BCMV = Bean common mosaic (Bean common mosaic virus); R = Rust (*Uromyces appendiculatus*)

Key to Disease Resistance Information:

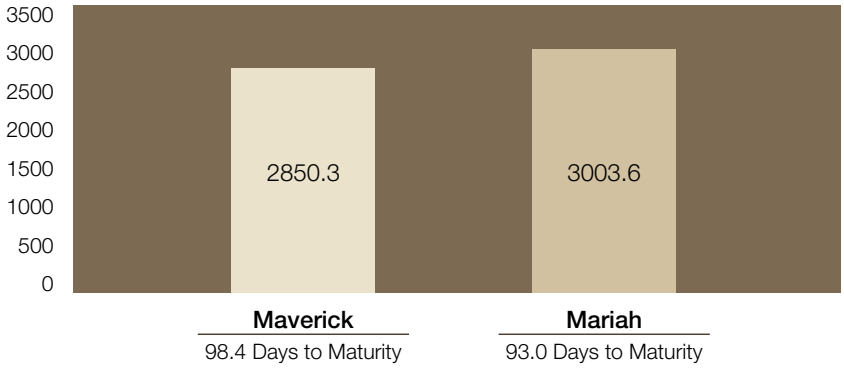
R = Resistance. (The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Resistant varieties may exibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.)

IR = Intermediate Resistance. (Varieties with an intermediate level of resistance to a specific pathogen or insect pest may perform substantially better than susceptible varieties when moderate to severe pathogen or pest pressure exists. These varieties may exibit a greater range of symptoms compared to resistant varieties when grown under similar conditions of moderate to severe pathogen or pest pressure.)

A Beautiful Performance by Mariah

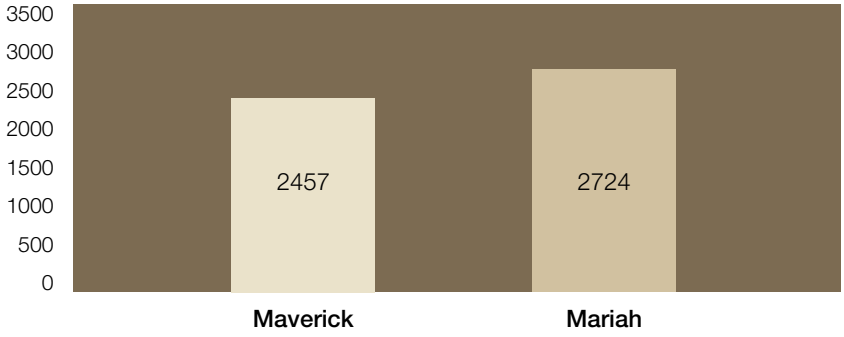
Here is **Mariah's** performance in trials conducted in commercial operations in Manitoba, CN and North Dakota, US.

Pinto Bean Yield Comparison Manitoba, CN 2006-2007 (kg/ha)



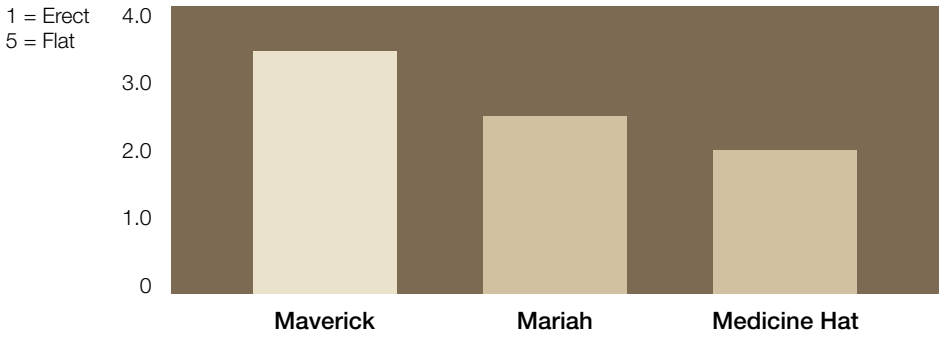
Source: 2006 yield data from Manitoba Pulse Growers in three locations. 2007 yield data from Manitoba Registration in four locations. Yield, Days to Maturity and Standability are weighted averages of 2006 and 2007 values, respectively.

Pinto Bean Yield Comparison North Dakota, US 2004-2006, 2008 (lb/acre)



Source: 2004 -2006 and 2008 yield data from North Dakota, US. Yield is a weighted average of 2004, 2005, 2006 and 2008 values, respectively.

Pinto Bean Plant Standability Manitoba, CN 2006-2007 (erect plant)



Source: 2006 data from Manitoba Pulse Growers in three locations. 2007 data from Manitoba Registration in four locations. Yield, Days to Maturity and Standability are weighted averages of 2006 and 2007 values, respectively.

For more information about **Mariah** seed supply or other fine Seminis products, contact your Seminis Seed Licensee or the Seminis sales representative.

Rich Maloney	Canandaigua, NY	(585) 233-4769
John Zink	Chatham, Ontario, Canada	(519) 351-7640

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Medicine Hat.

Your Prescription for Success

The doctor is in. Seminis breeders have focused in on what you need for a healthy crop and have developed new varieties, like **Medicine Hat**, that combine yield, quality and disease resistance to help you be successful in the field.

- Early pinto bean
- High yield potential
- Good seed weathering and less breakage
- Resistant to bean common mosaic and rust

Medicine Hat (XP 08550813) pinto bean is an early maturing, short-vine variety that has an upright plant. It has good seed weathering and less breakage for better canned quality. In Red River Valley trials, **Medicine Hat** has shown good adaptation and yield potential. It is well suited for narrow rows and direct harvest.

Medicine Hat

Relative Days to Maturity	Plant Type	Color	Seeds/LB	Disease Resistance
88-90	Indeterminate, short vine	Brown flecks on buff	1,140	BCMV, R (R)

Disease Abbreviations Key:

BCMV = Bean common mosaic (Bean common mosaic virus); R = Rust (*Uromyces appendiculatus*)

Key to Disease Resistance Information:

R = Resistance. (The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Resistant varieties may exibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.)

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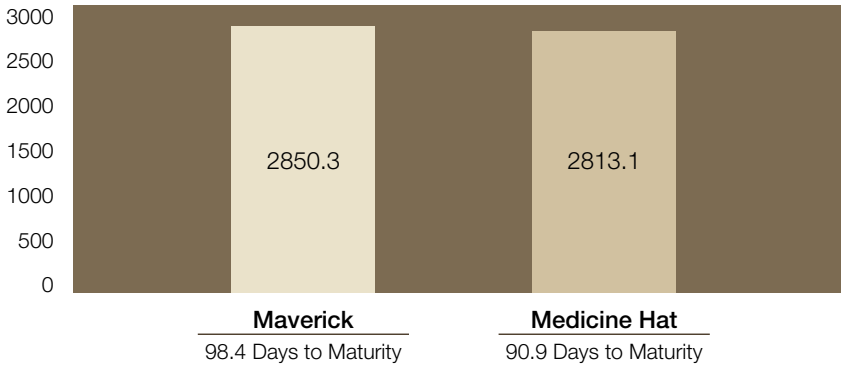
The Results Are In

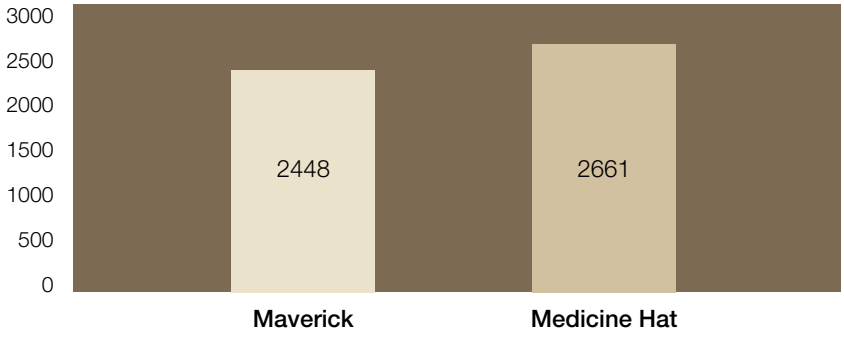
Here is **Medicine Hat's** performance in trials conducted in commercial operations in Manitoba, CN and North Dakota, US.

Pinto Bean Yield Comparison Manitoba, CN 2006-2007 (kg/ha)



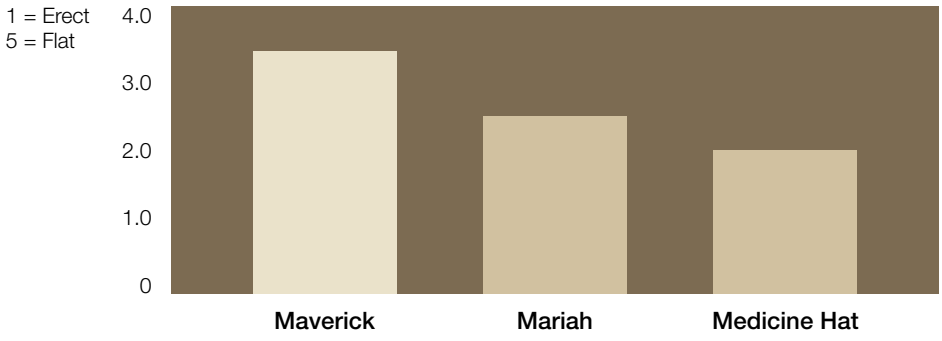
Source: 2006 yield data from Manitoba Pulse Growers in three locations. 2007 yield data from Manitoba Registration in four locations. Yield, Days to Maturity and Standability are weighted averages of 2006 and 2007 values, respectively.

Pinto Bean Yield Comparison North Dakota, US 2006 and 2008 (lb/acre)



Source: 2006 and 2008 yield data from North Dakota, US Yield is a weighted average of 2006 and 2008 values, respectively

Pinto Bean Plant Standability Manitoba, CN 2006-2007 (erect plant)



Source: 2006 data from Manitoba Pulse Growers in three locations. 2007 data from Manitoba Registration in four locations. Yield, Days to Maturity and Standability are weighted averages of 2006 and 2007 values, respectively.

For more information about **Medicine Hat** seed supply or other fine Seminis products, contact your Seminis Seed Licensee or the Seminis sales representative.

Rich Maloney	Canandaigua, NY	(585) 233-4769
John Zink	Chatham, Ontario, Canada	(519) 351-7640

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Break into the Market with Windbreaker

Seminis dry bean breeders are dedicated to developing varieties that provide consistent yield and performance, adaptability under a variety of growing conditions and improved processing traits that lead to a quality finished product. **Windbreaker** is the perfect example of that dedication.

- Short-vine pinto bean
- Consistently high yields
- Ripens quickly and uniformly
- Resistant to bean common mosaic and rust

Windbreaker is an upright, short-vine pinto bean that has produced consistently good yields, especially for the Red River Valley production area. **Windbreaker** ripens quickly and uniformly with reduced seed weathering. Try **Windbreaker** in narrow rows for direct harvest.

Windbreaker

Relative Days to Maturity	Plant Type	Color	Seeds/LB	Disease Resistance
94-98	Indeterminate, short vine	Brown flecks on buff	1,076	BCMV, R (R)

Disease Abbreviations Key:

BCMV = Bean common mosaic (Bean common mosaic virus); R = Rust (*Uromyces appendiculatus*)

Key to Disease Resistance Information:

R = Resistance. (The ability of a plant variety to highly restrict the activities of a specific pathogen or insect pest and/or to restrict the symptoms and signs of a disease, when compared to susceptible varieties. Resistant varieties may exibit some symptoms when specified pathogen or pest pressure is severe. New and/or atypical strains of the specific pathogen or pest may overcome the resistance, sometimes completely.)

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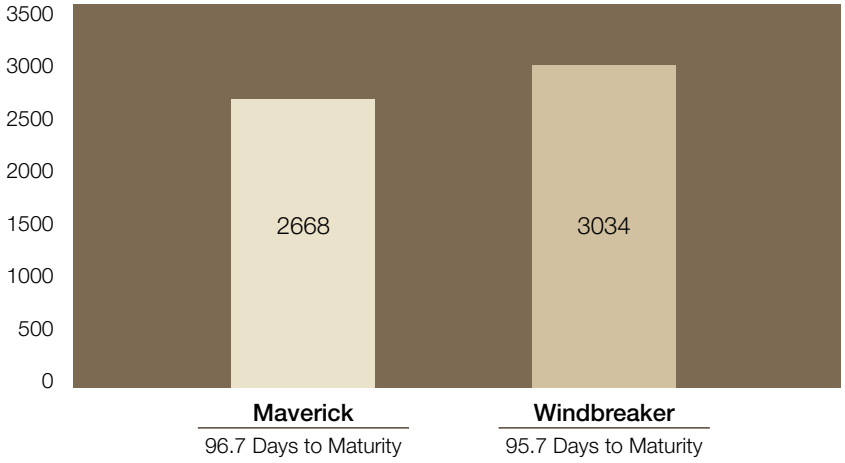
The Windbreaker Advantage

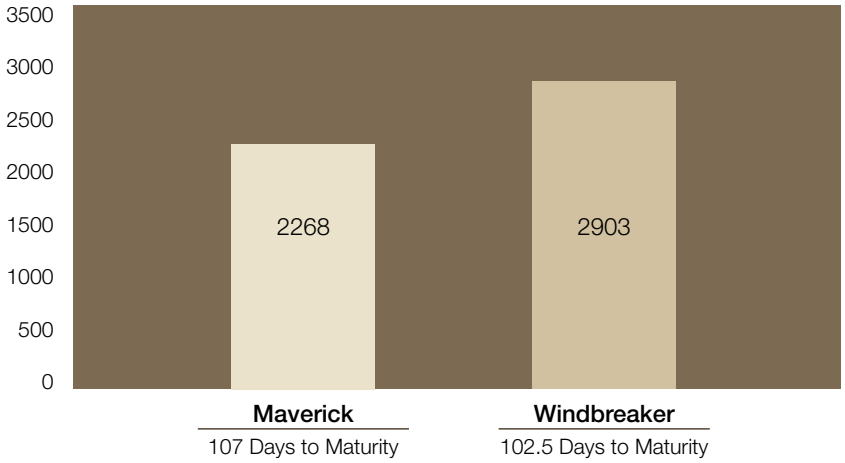
Here is **Windbreaker's** performance in trials conducted in commercial operations in Manitoba, CN and North Dakota, US.

Pinto Bean Yield Comparison Manitoba, CN 2006-2007 (kg/ha)



Source: 2006-2007 yield data from Manitoba Pulse Growers in three locations. 2007 yield data from Manitoba Registration in four locations. Yield and Days to Maturity are weighted averages of 2006 and 2007 values, respectively.

Pinto Bean Yield Comparison North Dakota, US 2007-2008 (lb/acre)



Source: 2007-2008 yield data from NDSU in Hatton and Forest River, North Dakota. Yield and Days to Maturity are weighted averages of 2007 and 2008 values, respectively. In 2008 NDSU trials for Maverick exhibited poor emergence, but results were nevertheless consistent with other trials.

For more information about **Windbreaker** seed supply or other fine Seminis products, contact your Seminis Seed Licensee or the Seminis sales representative.

Rich Maloney	Canandaigua, NY	(585) 233-4769
John Zink	Chatham, Ontario, Canada	(519) 351-7640

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