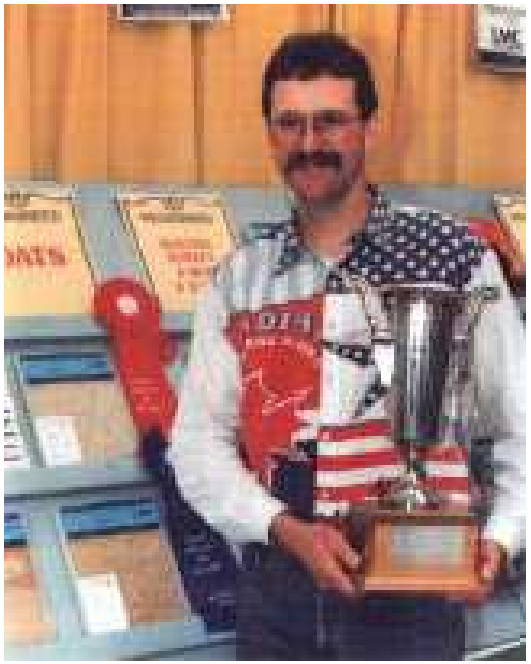
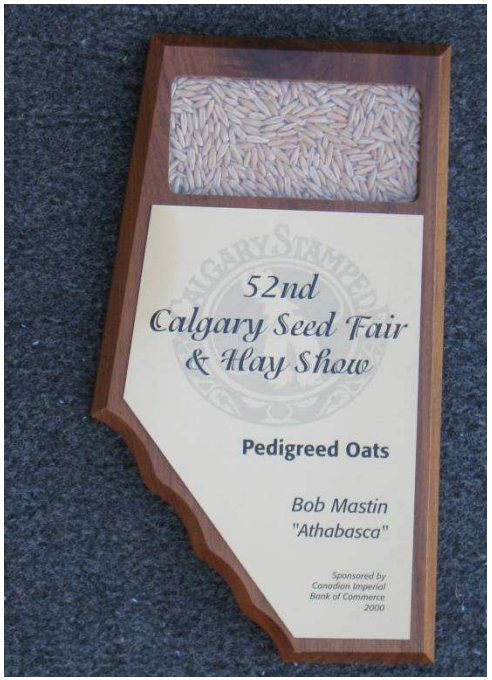
CANADA

MASTIN SEEDS



Calgary
Stampede Seed
Show
-Best Pedigreed
Seed Oat



Awarding winning pedigree seed

Achievements

- 2008 - Acquired 2nd new Barley variety – yet to be introduced to the general public
- 2008 – agreement signed to grow Sundre Barley in Russia
- 2008 - Received my 30 year certificate from the Canadian Seed Growers Association
- 2006 - Diversified into seed distribution with a top barley and oat variety
- 2006 - Acquired world wide distribution rights to a new Barley variety - Sundre Barley and AC Mustang Oats
- 2005 & 2006 - international export of oats and rye to South Korea
- 1996 - Became the largest retailer of oats in Alberta. Total Sales peaked in 2002/2003 at close to 200,000 bu/year of total seed sales

Providing excellent seed services to growers and farmers in Alberta, Western Canada & internationally. We distribute Sundre Barley and AC Mustang Oats as well as retail numerous other varieties.

Owned and operated by Bob Mastin, Mastin Seeds has been producing and retailing top quality pedigree seed since 1978.

Harvesting Sundre Barley

With a Class 7 Combine picking up the windrows

Producer of GMO Canola

Canada

- **agricultural area 29 Mio ha, 3.2 % of total land area**
- As of 2006, 67,586,739 hectares* — roughly 7.4% of total land mass was used for agriculture with only 29,048,749 (3.2%) seeded annually

- **area under Conservation Agriculture 20,9 Mio ha, 72 %**
- In 2006, 20,908,724 hectares or 72% of the total area prepared for seeding in Canada was completed using conservation tillage.

- **area under No-till 13,5 Mio ha, 46%**
- Nationally, the proportion of the land prepared for seeding using no-till practices increased from 7% to 46% between 1991 and 2006.* This was 64.5% of conservation agricultural area.

- **use of GMO seeds (inclusive open pollinated derivates)**

  26% mainly com, soybean and canola

Alberta

Climatic conditions

- average yearly rainfall 30 - 60 cm - *depending on location*
- rainfall in growing season 35% - 70% - *depending on location*
- duration of growing season 75—120 days — *depending on location*
- total joules per m^2 2,000 —2,200 Megajoules *during the growing season*
- max. temperature average summer time high - 15° C to 23°C, with extremes commonly up to 42°C - *depending on location*.

- agricultural area 7,578,201 ha, 11.5%
- area under Conservation Agriculture 5,720,809 ha, 75%
- area under No-Till 3,622,274ha, 47%
- use of GMO seeds (inclusive open pollinated derivates) 26% more Canola (rape) is grown

Precision Farming Technologies

Use of Precision Farming Technologies (Field Management)

- parallel driving (GPS) — 50%
- in Field Yield Monitoring — 27%

Note: less than 50% of these are fully utilized

- variable Fertilizer application — 2% -5%
- variable Herbicides and Pesticides application

less than 1% using hi/tech methods; 60% of all farmers use some type of “low-tech” method, e.g. spot spraying, adjusting ground speed, etc.

Typical Modern Farm

- Area Typical viable modern grain farm — 2,000 ha
  Average Canadian farm —295 ha

- Crop rotation Canola, Wheat, Barley
  Note: Occasionally peas or oats are added to the rotation, as well as occasionally a forage rotation such as alfalfa

- No till or low till - 90%

- Equipment used: *Air drills with no till capabilities, high clearance sprayers, straight cut headers on combine, where possible, otherwise swathers as well; class 7, 8 or 9 combines, heavy harrows for straw distribution; plus various pieces of cultivation equipment to be used only when necessary.*

- Use of GMO seeds, which type what properties
  100% of Canola (Hybrid, RR Hybrid)

CANOLA (rape)

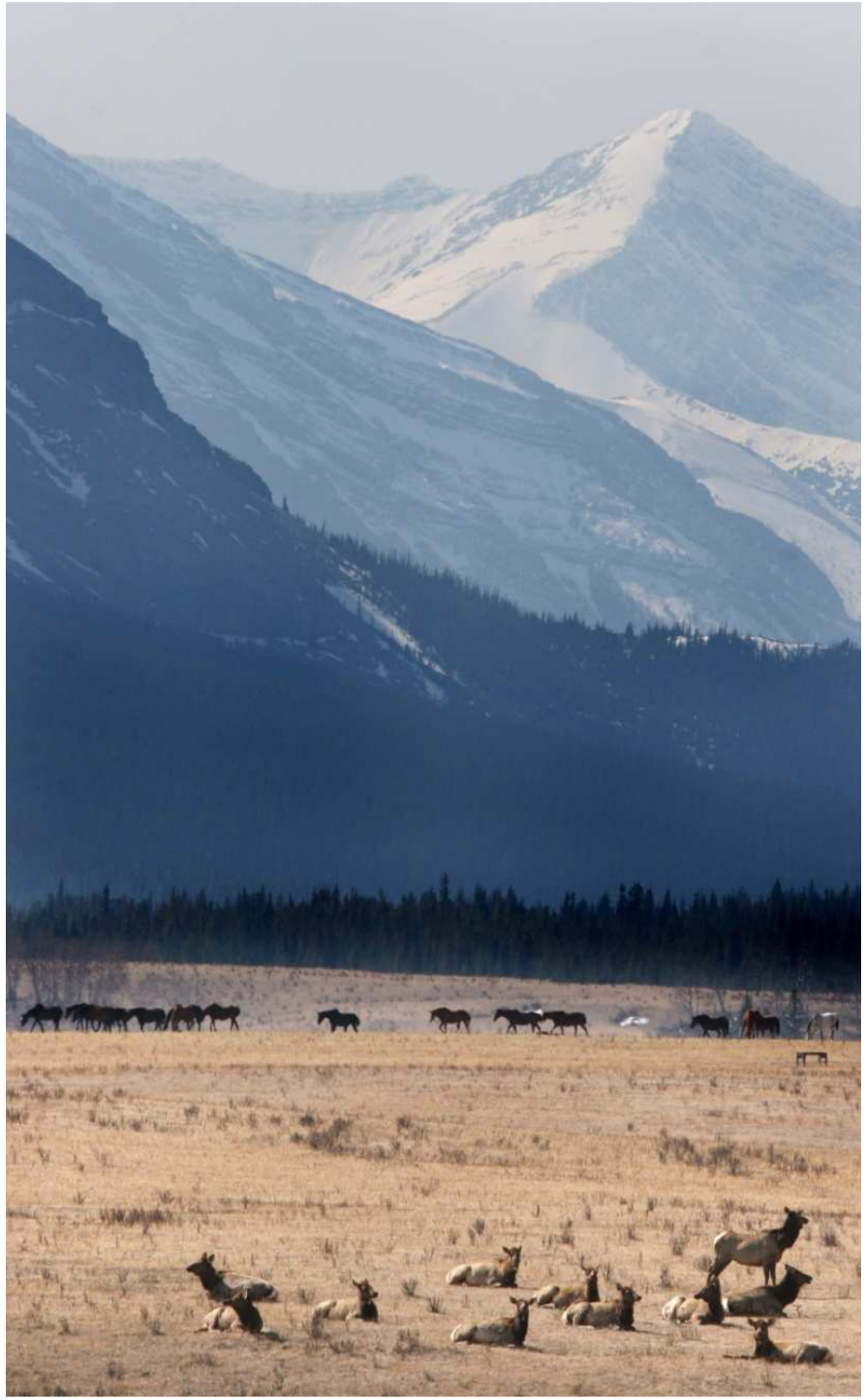
Costs per ha (in US$) (2008 Prices)	606	затраты на гектар
- Seedbed preparation, seeding	136	- подготовка почвы, посев
- Fertilizer applications	250	- применение удобрений
- Pesticides and Herbicides applications	125	- применение средств защиты растений
Harvesting and transport to storage	95	уборка и транспортировка на склад
Yields per ha	2.25 t	урожайность на га
Production costs per tonne	269	производственные затраты на т.
Farm gate price per tonne	420	цена реализации за т.
Farm income per ha *(land costs not included)*	339	фермерский доход

BARLEY

Costs per ha (in US$)	397	производственные затраты на га
- Seedbed preparation, seeding	112	- подготовка почвы, посев
- Fertilizer applications	150	- применение удобрений
- Pesticides and Herbicides applications	60	- применение средств защиты растений
- Harvesting and transport to storage	75	- уборка и транспортировка на склад
Yields per ha	4,5 t	урожайность на га
Production costs per tonne	88	производственные затраты на т.
Farm gate price per tonne	150	цена реализации за т.
Farm income per ha *(land costs not included)*	278	фермерский доход на га.

WHEAT

Costs per ha (in US$)	402	производственные затраты на га
- Seedbed preparation, seeding	112	- подготовка почвы, посев
- Fertilizer applications	155	- применение удобрений
- Pesticides and Herbicides applications	60	- применение средств защиты растений
- Harvesting and transport to storage	75	- уборка и транспортировка на склад
Yields per ha	3 t	урожайность на га
Production costs per tonne	134	производственные затраты на т.
Farm gate price per tonne	220	цена реализации за т.
Farm income per ha *(land costs not included)*	258	фермерский доход на га.



Wintering Elk herd enjoying the sun at Ya Ha Tinda