



GROWING FORWARD. SINCE 1971.

SNOBELEN FARMS

2022

**SPRING CEREAL
GUIDE**

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Lucknow



- Head Office
- Food grade soybean facility
- Receiving facility
- Cleaning, processing, and packaging seed
- Seed treating

Palmerston



- Receiving facility
- Cleaning, processing, and packaging pedigreed seed
- Seed treating



Troy Snobelen, Tanya Leppington, and Sam Snobelen

THE SNOBELN FARMS DIFFERENCE

Snobelen Farms Ltd. is an independent, family owned company that was founded in 1971, specializing in commercial grains and pedigree seed for markets across Canada and Internationally, and the production, processing and sales of food grade soybeans. We take pride in combining years of experience with attentive customer service to complement the premium quality of our agricultural products. With eight locations we are able to serve the needs of growers across Ontario.

We Specialize in:



CIPRS SCRS



CGC HACCP
HACCP CCG

We are CIPRS + HACCP,
FEMAS Certified

- Multiplying, processing, and selling the best genetics for our area.
- Testing and growing the varieties that work for the farmer and the end users
- Selling certified seed to farmers and retailers across Ontario

OUR SEED TEAM




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VARIETY CHARACTERISTICS

		Fusarium Data		Test Weight	Height	Heading	Maturity	Lodging	Straw Yield
		Combined	DON						
Oats									
AAC Bullet	White			AA	S		E	AA	A
AAC Banner	White			BA	S		L	A	BA
CDC Haymaker	Forage			N/A	VT		VL	BA	N/A
Everleaf 126	Forage			N/A	VT		VL	BA	N/A
Spring Wheat									
Quantum		S	S	AA	S	M	E	AA	AA
Ventry		MS	MS	AA	S	E	E	AA	AA
Starlite		MS	MS	AA	M	E	E	A	A
Barley									
AC Kings	2R			AA	T	M	E	BA	A
Bornholm	2R			BA	S	M	E	AA	AA
AAC Purpose	2R			AA	T	E	M	BA	AA
Massy	6R			AA	M	M	M	AA	A
OAC Laverne	6R			AA	T	E	M	AA	BA
Dignity	6R			BA	M	M	M	AA	AA
DS812	6R			A	M	M	M	AA	AA
AAC Vitality	6R			BA	T	L	L	BA	BA

Test Weight, Lodging, Straw Yield: AA=Above Average, BA=Below Average, A=Average

Height: S=Short, M=Medium, T=Tall, VT=Very tall

Heading & Maturity: E=Early, M=Medium, L=Later, VL=Very late

Fusarium Data: S=Susceptible, MS=Moderately Susceptible

Oats

CHARACTERISTICS

Bullet

- White hulled milling oat
- Good Crown Rust resistance
- Very strong straw
- Excellent yields, heavy kernel weight
- Medium height

Banner

- White hulled milling oat
- Excellent yield potential
- Desirable milling qualities
- Requires fungicide application to control Crown Rust

CDC Haymaker

- Forage oat
- Large, plump seed with high seed weight
- Tall structure with later maturity
- High yield potential

Everleaf 126

- Forage oat
- High crude protein and digestible fibre
- Exhibits Crown Rust resistance and other leaf disease tolerance
- Medium to tall plant stature

Spring Wheat

CHARACTERISTICS

Starlite *NEW*

- Excellent yield potential
- Snobelen Farms Exclusive variety
- Great milling quality

Ventry

- Good yield potential
- Excellent lodging tolerance
- Good disease package

Quantum

- Very good yield potential
- Early maturity
- Feed quality HRS
- Short plant stature
- Excellent standability

Barley

CHARACTERISTICS

Esma *New

- Two-row
- Short statured with excellent lodging score
- Good test weight
- Protected under the VUA program

AC Kings

- Two-row
- Good height, lodging resistant
- Early maturing
- Makes excellent feed value
- Easy to combine

Purpose

- Two-row
- Excellent standability
- Heavy bushel weight makes excellent feed value
- Easy to thrash

Bornholm

- Two-Row
- Early maturity
- Great test weight
- Excellent yield potential

Massy *New

- Six-row
- Excellent standability
- Great replacement variety for Dignity in mix grain

Laverne

- Six-row
- Good lodging resistance
- Excellent kernel weight
- Average height
- Height yielding and heavy bushel weight

Dignity

- Six-row
- Great straw strength
- Suited for Areas II and III in Ontario
- Good standability
- Medium height

DS812

- Six-row
- Noted for standability
- High straw index

Vitality

- Six-row
- Excellent standability
- Medium height barley
- Average yield



PLANT POPULATIONS

	Millions of Seeds/Acre	Plants/Foot of Row on 7.5" row spacing
Oats	0.8—1.2	11.5—17.2
Barley	1.0—1.4	14.3—20.1
Mixed Grain	0.8—1.4	11.5—20.1
Spring Wheat	1.2—1.6	17.2—23.0
Winter Wheat	1.4—1.8	20.1—25.8

SEEDS PER FOOT ROW

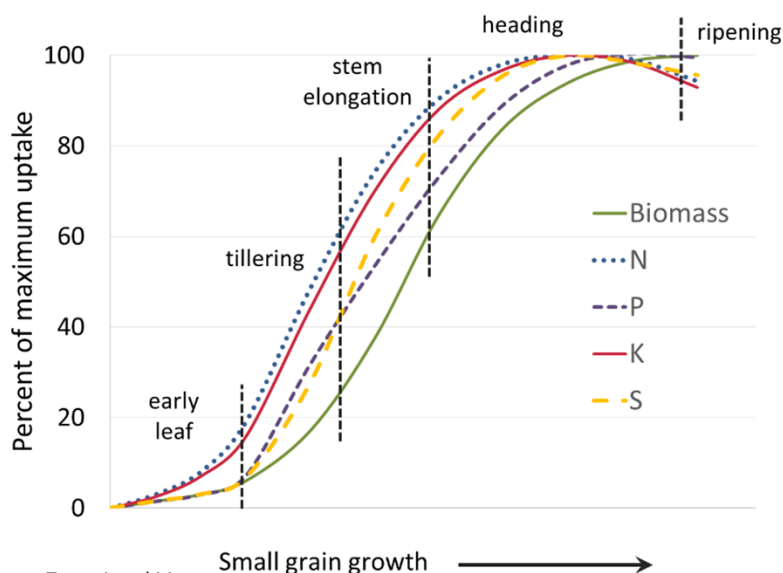
Desired Plant Population (Seeds / foot of row) in 7.5 inch row spacing						
Seeds per Acre	809k	1.012M	1.213k	1.416k	1.619k	1.861k
Seeds/foot row	12	14	17	20	23	26

POUNDS OF SEED PER ACRE

Pounds of seed to be planted per acres assuming 15% stand loss and 95% germination

Seeds/lb.	800k	900k	1M	1.1M	1.2M	1.3M	1.4M	1.5M	1.6M	1.7M
lbs/ac										
8,000	123.8	139.3	154.8	170.3	185.8	201.2	216.7	232.2	247.7	263.2
8,500	116.6	131.1	145.7	160.3	174.8	189.4	204.0	218.5	233.1	247.7
9,000	110.1	123.8	137.6	151.4	165.1	178.9	192.6	206.4	220.2	233.9
9,500	104.3	117.3	130.4	143.4	156.4	169.5	182.5	195.5	208.6	221.6
10,000	99.1	111.5	123.8	136.2	148.6	161.0	173.4	185.8	198.1	210.5
10,500	94.4	106.1	117.9	129.7	141.5	153.3	165.1	176.9	188.7	200.5
11,000	90.1	101.3	112.6	123.8	135.1	146.4	157.6	168.9	180.1	191.4
11,500	86.1	96.9	107.7	118.5	129.2	140.0	150.8	161.5	172.3	183.1
12,000	82.6	92.9	103.2	113.5	123.8	134.2	144.5	154.8	165.1	175.4
12,500	79.3	89.2	99.1	109.0	118.9	128.8	138.7	148.6	158.5	168.4
13,000	76.2	85.7	95.3	104.8	114.3	123.8	133.4	142.9	152.4	161.9
13,500	73.4	82.6	91.7	100.9	110.1	119.3	128.4	137.6	146.8	155.9
14,000	70.8	79.6	88.5	97.3	106.1	115.0	123.8	132.7	141.5	150.4
14,500	68.3	76.9	85.4	93.9	102.5	111.0	119.6	128.1	136.6	145.2

PLANT NUTRITION



Source: Texas A and M

NUTRITION REMOVAL

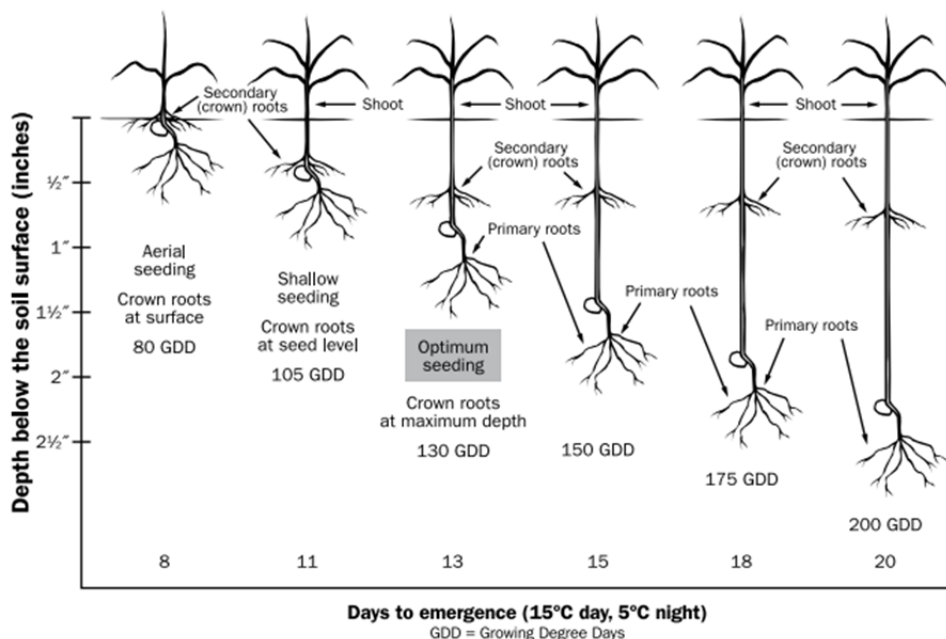
	Crop	P ₂ O ₅	K	S
Grain	Barley	17	24	5
	Oats	13	17	4
	Spring Wheat	18	16	6
Straw	Barley	5	67	3
	Oats	2	58	1
	Spring Wheat	4	43	2
Combined	Barley	23	91	8
	Oats	15	75	5
	Spring Wheat	22	59	8

Source: Dr. Tarlock Sing Sahota, Lakehead University

Nutrition removal expressed in lbs.

P₂O₅= Phosphorus, K₂O= Potassium, SO₄ (Sulphate Sulphur) per acre for a 100bu/ac barley crop, 100bu/ac oat crop and a 65bu/ac spring wheat crop.

SEEDING DEPTH



Source: Publication 811, University of Guelph/OMAFRA

Agronomic Tip

Optimum seed depth is 1" and at this depth it requires 130 GDD for emergence

Agronomic Tip

Spring cereals are a base 0 (zero) crop suggesting growth can occur above 0 degrees Celsius

DISEASES



Crown Rust

The first symptoms of crown rust are orange-brown pustules that appear scattered over the leaf surface. Leaf sheaths, and later the oat panicle, can also become infected. The disease is favoured by high temperatures (20–25°C) so epidemics usually occur in June–July. Late in the season black pustules appear within the existing crown rust lesions.



Stripe Rust

In Ontario, stripe rust does not overwinter. Instead urediniospores, the source of inoculum, are blown from the United States. Normally the first inoculum starts arriving at the beginning of June. Symptoms will normally appear about one week after infection. The urediniospores need several hours of moisture on plant leaves, along with temperatures near 10°C, to germinate and infect the host. After infection, small yellowish uredinia appear in linear rows the length of the leaf blade as result of fungal mycelia from the spores elongating in parallel with the leaf veins (see photo). A single infection can result in one stripe the length of the leaf. The head can also be infected and kernels are replaced with yellow spores. With severe early infections, plants can also be stunted.

Agronomic Tip

Good seed-to-soil contact and adequate soil moisture for germination are essential



Common Root Rot

This disease is caused by a complex of soil-borne fungi. The spores germinate in the soil. Seedlings become infected following germination. Spores are produced on diseased tissue and are spread by wind, water, cultivation, and infected seeds. Further infections continue throughout the growing season with new spores being produced on plant parts as they mature. Patchy emergence is usually the first indication that damage has occurred. Infections start on the roots and sub-crown internodes and move to the leaves. Seedlings may die before or soon after emergence even though they only show slight damage.

Pictures & Descriptions derived from:
University of Nebraska-Lincoln,
Queensland Government,
Alberta Government



Powdery Mildew

Symptoms of powdery mildew can be found on leaves, stems and heads, but leaves are most commonly infected. Typically, white pustules appear which produce a mass of spores with a powdery appearance. As the mildew pustules become older, they darken to a grey or brown colour. Eventually, black spore cases (cleistothecia) can be found embedded in the mildew pustule, usually towards the end of the season.

Agronomic Tip

Early planting promotes tillering, large head production and advance flowering (avoiding the hot and dry conditions typical of late June and

INSECTS



Cereal Aphid

Oat aphids are the most abundant species of cereal aphids and vary from mottled yellow-green through olive-green and dusky brown, to a blackish green, and are characterised by a reddish patch on the tip of the abdomen. Symptoms include patches of plants with furred leaves and may have a 'sooty' appearance. Oat aphid colonies develop on the outside of tillers from the base upwards on stems, nodes and backs of mature leaves, starting any time between seedling stage and grain filling. Feeding damage often has no obvious signs or symptoms, although heavily-infested plants may be covered in black sooty moulds, which live on the sugary honeydew excreted by aphids. Plants may also show signs of barley yellow dwarf virus (BYDV).



True Armyworm

Armyworm larvae feed nocturnally and damage from small larvae may not be evident at first. In wheat and other small grains, look for early signs of feeding and/or larvae on the soil surface. Damage may be concentrated in lodged areas or areas with dense growth. Check all fields closely by looking for both leaf defoliation and head-clipping. Two factors increase risk of true armyworm infestations each year. The first is cool, wet April conditions which are detrimental to the natural enemies of armyworm. The second is strong storm fronts that carry in large numbers of moths from the southern US where they overwinter.



Cereal Leaf Beetle

Larvae are yellowish-orange, but this color is usually obscured by a layer of feces and mucus, giving them a shiny appearance. This layer protects them from natural enemies and drying out and has been known to ruin a favorite pair of pants as fields with heavy infestations are walked. Cereal leaf beetle has one generation per year. Adults pass the winter in leaf litter in wood lots, hedgerows, and similar areas. In March and mid-April as temperatures increase, adults fly to grain fields to lay eggs, which hatch and young larvae begin to feed. Young larvae do not inflict much damage, but older larvae have voracious appetites and can cause extensive damage. CLB larvae and adults feed between the veins of the newest leaves on host plants. Larvae cause the most damage by removing long strips of tissue from the upper leaf surface, while leaving the translucent cuticle of the lower surface intact. This feeding pattern produces a characteristic “frosted” appearance. Tips of damaged leaves frequently turn white, giving heavily infested fields a frost-damaged appearance.

Pictures & Descriptions derived from:
University of Nebraska-Lincoln,
Queensland Government,
Alberta Government

Agronomic Tip
Responsive to
management including
planting dates, plant
density, fertility, ferti-
lizer placement, fungi-
cides and weed control



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