

GrainMonster 28

Canadian Grain Sorghum Hybrid (CGSH28) | Red Grain | Single-Cut Variety

- Rapid, high-yield grain production even in drought-prone conditions
- Gluten free grain, excellent nutritional profile high in protein
- Excellent feed source for human consumption, dairy, beef, and hogs
- Recommended for areas with over 2700 corn heat units

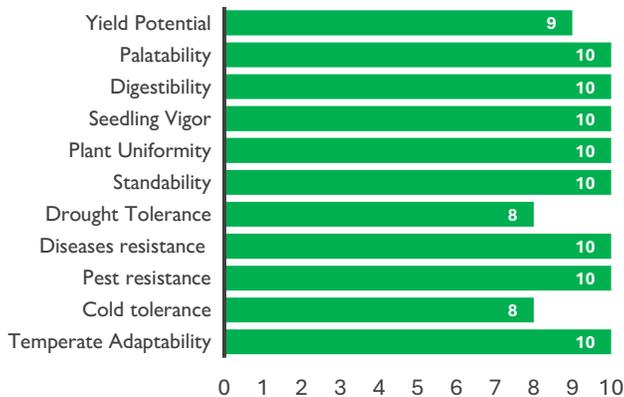
SNAPSHOT

Name (ID) GrainMonster 28 (CGSH28)

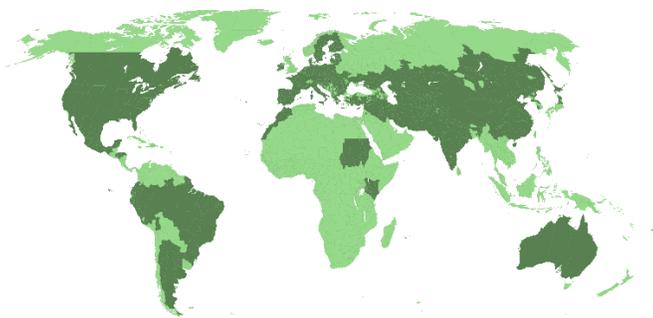
Type Sorghum (Large brownish red grain)

Development Period 10 years

Initial Release 2011



AREAS OF ADAPTATION



GrainMonster 28 has been extensively tested in North America and may be deployed in other countries with similar climates and soils.

CROP USE



GrainMonster 28 is a groundbreaking temperate grain sorghum hybrid. With impressive grain yields of 5 to 6 tons per hectare, this hybrid offers a reliable solution for food and feed production. Its unique features include resilience against drought, frost, and water logging, as well as adaptability to various soil types. With the potential to address global food security challenges, this sorghum hybrid presents an attractive opportunity for worldwide growing in temperate climate.

FIELD POSITIONING

Tough Dryland	HS
High Yield Dryland	S
Limited Irrigation	S
Full Irrigation	S
Early Planting/Cold Soils*	S
No-Till	HS
Poorly Drained Soils	S
Anthraco-nose Prone Area	HS
Fusarium Prone Area	HS

Observed Suitability and Field-by-Field Positioning

HS = Highly Suitable S = Suitable MA = Manage Appropriately X = Poor Suitability

*Soil temperature should be at least 12° Celsius

CHARACTERISTICS AND RATINGS

- **Plant Height (Main Stem)** 90 to 100 cm
- **Number of Leaves** 11 to 13
- **Leaf Color** Leaf mid-rib, color green
- **Days to Flowering** 55 to 60
- **Number of Tillers** 1 to 2
- **Inflorescence** Semi-loose
- **Seed Color** Brownish Red
- **Grain Luster** Lustrous
- **1000 Seed Weight** 18 to 20 g
- **Synchrony of Flowering** Uniform
- **Grain Covering by Glumes** No
- **Grain Maturity** 110 to 120 days
- **Lodging** No lodging

PERFORMANCE[†]

- **Yield:** Adaptable to temperate climate, drought tolerance with excellent stability in terms of yield
- **Quality:** GrainMonster 28 consistently demonstrates high quality with 14 to 16% crude protein, 28 to 32% acid detergent fiber, 56 to 59% neutral detergent fiber, and 66 to 70% total digestible nutrients
- **Nutrition:** Ideal for human consumption as a gluten-free grain alternative and dairy, beef, hog and poultry industry
- **Versatility:** With optimum planting, seeding, fertility, and harvesting practices, GrainMonster 28 consistently delivers high yields and quality across diverse growing conditions

CROP MANAGEMENT GUIDE

KEY USE CASES AND FEATURES:

- High grain yield ranged from 5 to 6 t/ha
- Excellent yield stability in temperate climates
- Ideal for human consumption, dairy, beef, and hog industry
- High-drought tolerance enhances reliability in grain yield
- Excellent in food processing such as bread
- Gluten-free grain

SEEDING:

- **Planting: Planting:** To select the optimal week of planting, ensure that the soil temperature remains at least 12°C consistently, even overnight **CRITICAL**
- **Spacing:** Rows 30 inches apart with seeds planted 2 inches apart within the row **CRITICAL**
- **Seed Size:** 35,000 to 38,500 seeds/kg **CRITICAL**
- **Seed Rate:** 4 kg/acre or 10 kg/ha
- **Planting Depth:** 0.75 to 1 inches **CRITICAL**
- **Planting Equipment:** Utilize corn planters with sorghum plates for optimal seed handling

FERTILITY:

- **Preparation:** A soil test is always recommended to establish a baseline of fertility requirements
- **Fertilizer Application:** Apply 40 lbs Nitrogen, 30 lbs Phosphorus, and 30 lbs Potassium per acre or 40 kg

Nitrogen, 30 kg Phosphorus, and 30 kg Potassium per hectare at planting. Side dress with 40 lbs Nitrogen per acre 4 to 5 weeks after planting

- **Soil pH:** Optimal range 5.5 to 7.5

HARVEST:

- **Grain Maturity:** Physiological maturity happens at 25 to 30% moisture. The plants continue to grow even after seed maturity is reached
- **Combining:** Harvest when grain moisture reaches 15 to 18% using a grain combine with proper adjustments
- **Harvest Losses:** Shrink header losses (shattered kernels, dropped heads, uncut heads), cylinder losses (unthreshed or cracked grain), and shoe losses (grain carried or blown across the shoe) by adjusting combine settings for ground speed, cylinder speed, clearance, and airflow
- **Drying:** Harvested grain should be dried to reach a moisture level of less than 13% for safe storage
- **Grass Weed Control:** Grass weeds can be controlled with AAtrex application at 4 to 6 leaves stage of crop or by applying Dual II Magnum as preemergence treatment after seeds are treated with Concep III
- **Broad Leaf Control:** Broad leaf weeds can be controlled with BASAGRAN Forte, or with 4-D 0.5 to 1.0 L/ha herbicide at 4 to 6 leaves stage of crop

[†]Ratings are based on testing over a number of years in numerous locations. Adverse environmental conditions and planting dates may alter a hybrid's performance, maturity and resistance to certain diseases and insects.

GrainMonster 28

5-YEAR PERFORMANCE AVERAGES ACROSS CANADA

VIGOR

Early Vigor

1.5

PLANT HEIGHT

Height (cm)

94.092

GRAIN YIELD (13% MOISTURE)

Total GY mt/ha Season

5.120

NUTRITIONAL CONTENT (% OF DMY)

Crude Protein

13.400

Carbohydrate

74.510

Fat

3.710

Starch

69.112

Ash

1.550

Early Vigor Rating Scale: 1 = Excellent, 2 = Very Good, 3=Good, 4 = Acceptable, 5 = Poor | Fat measurements are for OMEGA-3.