

CANADIAN GRAIN SORGHUM HYBRID 9 (CGSH- 9)

CANADIAN GRAIN SORGHUM HYBRID 28 (CGSH- 28)

Characteristics of CGSH 9:

- Grain yield range from 5-6 t/ha
- Flowering in 55 to 60 days after planting
- Maturity in 110 to 120 days
- Plant height of 130 to 140 cm
- Large yellowish white grain
- Grain composition 12.6% crude protein, 3.6% Fat, 74.87% total carbohydrates and 68.4% starch
- Ideal for human consumption, dairy, beef and hog industry
- Adaptable to temperate climate, drought tolerance with excellent stability in terms of yield

Research on Adaptability, Agronomy and Utilization of AERC's grain Sorghum Hybrid is conducted in Partnership with research branch, Agriculture and Agri Food Canada, Ontario Ministry of Agriculture and Food, other agricultural ministries of different provinces in Canada and various universities of Canada.



AERC's CGSH 9 was released in 2010. This hybrid is recommended for areas with over 2700 corn heat units.

Grain sorghum Utilization:

Grain sorghum is a major food for human consumption in Africa and south east Asia. Grain sorghum also serves as a major feed for both cattle and poultry and often used to replace corn in animal feed in USA, Japan and Mexico. Sorghum plants flower under short days, and are frost sensitive. It is adapted to drought with the ability to fold its leaves during noon and a layer of wax over the leaves reduces the evapotranspiration. The root system of sorghum is bigger and deeper than that of maize. Sorghum plants can also withstand water logging and can be grown on heavy or light soils. USA is the largest producer and exporter of grain sorghum in the world. AERC Inc. has developed temperate grain sorghum hybrids suitable for Ontario and Quebec climatic conditions and similar conditions elsewhere with grain yields of 5-6 tons/ha.

Characteristics of CGSH 28:

- Grain yield of 5-6 tons per hectare
- Excellent grain quality
- Flowering in 50 to 60 days after planting
- Maturity in 100 to 110 days
- Plant height of 85 to 95 cm
- Large brownish red grain
- Grain composition 12.9% crude protein, 3.5% Fat, 75.2% total carbohydrates and 68.2% starch
- Ideal for human consumption, dairy, beef, hog and poultry industry
- Adaptable to temperate climate, drought tolerance with excellent stability in terms of yield
- Often suits for bird seed industry



AERC's Canadian Grain Sorghum Hybrid 28 was released in 2010. This hybrid is recommended for areas with over 2700 corn heat units.

CROP MANAGEMENT SUMMARY- CGSH 9 AND CGSH 28 GRAIN SORGHUM

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| Planting date | Plant in 3 rd week of May, when soil temperature is above 12°C. |
| Spacing | Between rows 75 cm or 30 inches and 5 cm or 2 inches apart within the row. |
| Seed rate | 4 kg/acre (9 lbs/acre) or 10 kg/hectare. (35,000 to 38,460 seeds/kg). 1000 seed weight CGSH 9 = 27 gm; CGSH 28 = 26 gm. |
| Planting depth | Plant shallow at 2 to 3cm or 0.75 to 1 inch in good seedbed. |
| Planting equipment | Use corn planters with sorghum plates to handle sorghum seed. |
| Fertilizer | Apply 40 lbs N, 30lbs P and 30 lbs K per acre or 40 kg N, 30 kg P and 30 kg K per hectare at planting. Side dress 40 lbs N/acre or 40 kg at 4 to 5 weeks after planting. |
| Soil pH | Optimum soil pH 5.5 – 7.5. |
| Grass weed control | Grass weeds can be controlled with AAtrex application at 4–6 leaves stage of crop or apply Dual II Magnum at preemergence treatment after seed treated with Concep III. |
| Broad leaf weed control | Broad leaf weeds can be controlled with BASAGRAN Forte, or 2, 4-D 0.5-1.0 L/ha. Herbicide should be used at 4- 6 leaves stage of crop. |
| Grain maturity | Physiological maturity at 25 to 30 % moisture. Plants will continue to grow even after seed maturity. Use pre harvest desiccants Reglone to accelerate the natural dry-down of grain. |
| Combining | Plants are ready for harvesting at grain moisture of about 15% with a regular grain combine with proper adjustments. |
| Harvest losses | Combining losses could be: 1) Header losses- shattered kernels, dropped heads and or uncut heads. 2) Cylinder losses- un threshed grain or cracked grain (caused by low clearance or higher cylinder speed). 3) Shoe losses- grain carried or blown across the shoe are due to higher ground speed. Combines must be adjusted for, ground speed, cylinder speed and clearance, air flow etc. to get proper threshing while reducing the harvest losses. |
| Drying | Wet sorghum cannot be stored as long as corn without spoiling. Harvested grain should be dried to reach a moisture level of less than 13% for safe storage. |