GO TECHNOLOGIES LTD.

HEPAD

HIGH EFFICIENCY PORTABLE AERATION DRYER

DRIES GRAIN IN THE BIN

~ NO MONITORING REQUIRED

~ FASTER DRYING ~RADIANT HEAT

QUALIFIES FOR 50% AB CAP GRANT

EFFICIENT HEAT EXCHANGE SYSTEM

~ ISOLATES COMBUSTION GASES AND EXHAUST

~ ELIMINATES HEAT SOURCE CONTACT WITH VALUABLE INVENTORY

PORTABLE AND EASILY STORED

200,000 - 450,000 BTU HEATING SYSTEM

- XL HEAT EXCHANGER & DUAL BURNER OPTIONS

SIZABLE TO FIT

3-20 HP APPLICATIONS

FLEXIBLE LEASE OPTIONS

GOTECHNOLOGIES.CA 780-871-4800

Grain Conditioning Study

GO Technologies is proud to participate in the following:

3D Energy and the Prairie Agricultural Machinery Institute (PAMI) are collaborating on a three-year-long study (2019-2021) to assess the energy consumption of grain drying within Alberta, Canada. A total of 36 in-bin systems and 5 continuous grain dryers are being metered within this study. However, only 32 in-bin systems and 3 continuous dryers were utilized within 2019.

Of the 32 in-bin systems, 22 are direct-fired natural gas systems, 7 are indirect fired diesel or natural gas-fired (3 natural gas, 4 diesel), and 3 bins are heated using solar air collectors. Energy consumption per tonne of moisture removed (specific energy) was the chosen energy performance metric, as it allows for easy comparison between different system types, regardless of initial grain moisture, final grain moisture, and volume of grain dried.

Summary

The energy analysis determined that two drying cycles analyzed in the 2020 grain conditioning study had an average weather normalized natural gas consumption of 8.7 GJ and an average electricity consumption 169 kWh per drying cycle.

This relates to a total weather normalized energy consumption of 18.7 GJ (combined energy use of two drying cycles), a specific energy of 3.37 GJ/Tonne of moisture removed, and associated greenhouse gas emissions of 1.08 tonnes of carbon dioxide equivalent (tCO2e).

Of the combined 2019 and 2020 in-bin drying systems analyzed within this grain condition study, the energy use benchmark was found to be 8.55 GJ/Tonne of moisture removed (5.59 GJ/Tonne of Moisture Removed for indirect systems and 9.59 GJ/Tonne of Moisture removed for direct-fired systems).

This resulted in the two cycles submitted for the 2020 study consuming, on average, 61% less energy than typical in-bin drying systems (Figure 1).