Carbon Footprint Reduction and Compensation Strategy
MOLESWORTH FARM SUPPLY LTD.
RR#1 Listowel, ON, N4W3G6

Sept. 30, 2020

1) MFS Carbon Footprint for large delivery trucks, small sales vehicles, plus electricity for admin & production; and propane used in the mill and truck garage.

2) Oct1,2019 – Sept 30,2020.
Diesel Fuel utilized – 822,675 litres X 2.66 kg.CO2/l = 2188.3 tonnes of CO2
Gasoline utilized (Covid year) 5838 litres X 2.30 kg.CO2/l = 13.43 tonnes of CO2
Propane 35,490 litres X 1.51 kg.CO2/l = 53.59 tonnes of CO2
Electricity 1,512,465 kWh X .041 kg.CO2/kWh = 62.01 tonnes of CO2.

Total Carbon Footprint for this period 2317.34 tonnes of CO2

3) MFS Carbon Footprint Reduction Strategy:

a) Large delivery trucks are replaced on a 6-year cycle with new vehicles which are more efficient and have lower emissions than the vehicles being replaced. Still researching and watching the idea of being an early innovator on electric or more probably hydrogen fuel cell technology in our fleet. We have the high voltage, 3 phase power & trucks home every night which gives us an advantage in adapting one of these new, non fossil fuel alternatives.

b) Small (sales) vehicles – we have made the change from full-size, gas-powered pickups to mid size diesel power. We have 5 hybrid/ all electric vehicles now (3 Volts,1 Bolt and 1 Rav 4 Hybrid). GM replacement of the Volt has been slow & we are driving them longer than planned. We will replace the 3 Volts with 3 Chevy Bolts in the fall/winter of 2021/22 as they become available.

c) Electric Lift trucks have replaced the propane units.

d) Now all LED lights throughout

e) Power savings through the use of capacitors – improves our Power Factor & lowers kWh/tonne

f) New automatic (computerized) truck wash being installed late 2021 – much lower water usage.

g) Have moved from blowing feed to using high capacity augering system (old way took 2 hrs, 20 mins to blow 40 tonne; new way takes 45 minutes for the same)

MFS Carbon Compensation Strategy:

Continue practice of donating $5,000 per year to MVCA for tree planting (trees sequester carbon out of the atmosphere).

Summary:

One way of evaluating our progress in lowering our Carbon Footprint is by comparing the amount of fuel utilized per Tonne of feed sold from year to year.

- Sept 30, 2015 - litres of fuel per tonne of feed sold = 3.50
- Mar 31, 2018 - litres of fuel per tonne of feed sold = 3.18
- Sept 30, 2020 - litres of fuel per tonne of feed sold = 3.13 (an 11.6% drop in 5 years).

Our attempts to lower our Carbon Footprint through savings in the amount of electricity used per tonne of feed produced have not come to fruition so far. Our new mill as described below will help us achieve that goal.

In 2020-2021 MFS built a new, hi-tech, hi capacity feed mill to increase tonnage capacity in addition to our original mill. Many innovative features have been incorporated into this facility to produce feed with a low labour factor, lower electricity per tonne and low carbon footprint.

From Sep 2015 to Sept 2020, we made significant progress due to changes that were easy to do both physically and financially (e.g., pickup trucks, hybrid vehicles, augering vs. blowing, lighting, lift trucks etc.). Through awareness, diligence and the continued selection of more efficient vehicles and equipment, our Carbon Footprint for MFS will continue to diminish.

Ron Coghlin
Chairman
Molesworth Farm Supply Ltd.