Molesworth Farm Supply Ltd.

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Carbon Footprint Reduction and Compensation Strategy

March 31, 2018

1. **MFS Carbon Footprint** for large delivery vehicles, small sales vehicles plus electricity and propane used in the mill and truck garage.
2. Apr 1, 2017 – Mar 31, 2018

Diesel Fuel Utilized	–	748,680 l x 2.66 kg CO_2/l	=	1991.50 tonnes of CO_2
Gasoline Utilized	–	16,515 l x 2.30 kg CO_2/l	=	37.98 tonnes of CO_2
Propane Utilized	–	34,835 l x 1.51 kg CO_2/l	=	52.60 tonnes of CO_2
Electricity Utilized	–	1,478,098 kWh x .041 kg CO_2/kWh	=	60.60 tonnes of CO_2

Total Carbon Footprint for this period: 2142.70 tonnes of CO_2

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. We are monitoring closely the evolution of several companies researching and producing large electric trucks.

b) Small sales vehicles – the change has been made from full size gas powered pickups to mid-size diesel power. Two Chevy Cruze diesel cars and one Chevy Volt have been utilized with excellent results – as these Cruze cars come up for renewal, they will be replaced by Chevy Bolts or Volts! We have installed a triple charging station to be able to 'fast charge' our present and future electric vehicles. We have also replaced our two propane lift trucks in the mill to electric (battery) power.

3. **MFS Carbon Footprint Reduction Target:**

This is our second attempt at measuring our Carbon Footprint and establishing plans as to how to reduce that footprint on a per tonne of feed sold basis. In our initial measurement of our carbon footprint (Fiscal 2014-15), we were using 3.5 litres of fuel per tonne of feed sold. During the past year ending March 31, 2018, we used 3.18 litres of fuel per tonne of feed sold. The move from full size gas pickups, to mid-size diesel pickups, compact diesel cars, and one hybrid vehicle, dropped our fuel usage significantly in this sector. With our large diesel trucks, the lowered fuel usage is attributed to several changes – educating our drivers on fuel reduction strategies such as progressive shifting and no idling as well as shortened unloading times due to augering versus blowing of feed (lower RPM and much faster discharge per hour).

Our efforts so far have paid significant dividends in a reduction of 9.2% in the fuel used per tonne of feed sold.
Our conservation efforts to reduce the kilowatt hours of electricity per tonne of feed included changing lights in the production area, warehouses and truck garage to LED. We continue to utilize the power savings generated by the use of capacitors on all of our electrical components in the manufacturing process. This improves our power factor and lowers the amount of kilowatt hours per tonne.

Propane is used in heating our truck garage and wash water – our strategy here is to lower the utilization of propane through education of operators and follow up, as well as lowering the temperature of the wash water during spring, summer and fall.

4. **MFS Carbon Compensation Strategy:**

As in the past few years, MFS will continue to designate $5,000.00 per year to MVCA for the planting of trees. This helps to lower our overall Carbon Footprint as trees are able to sequester carbon out of the atmosphere.

SUMMARY

Without setting a goal in our first attempt at measuring our Carbon Footprint and coming up with ways of lowering it, we dropped our CO_2 production per tonne of feed sold by 9.2% in 2 ½ years. Through awareness, diligence and the continued selection of more efficient vehicles and equipment, our Carbon Footprint will continue to diminish.

Ron Coghlin,
Chairman
Molesworth Farm Supply Ltd.