



Another major hit to farm income

APAS releases first updated estimate of impacts of carbon tax on agriculture

January 7, 2021 (Regina, SK) – In December 2020, the federal government announced that the carbon tax will increase to \$170 per tonne by 2030. The Agricultural Producers Association of Saskatchewan (APAS) has released updated estimates of the impact this increase will have on farmers.

“Our updated numbers show that the cost of producing wheat could go up to over \$12.50 per acre in 2030 due to the carbon tax,” said APAS President Todd Lewis. “This cost increase is carried entirely by farmers and can’t be passed along to our customers. We’re looking at a reduction of net farm income by hundreds of millions of dollars in Saskatchewan alone, and the modest rebates provided by the federal government won’t make up for these losses. It’s unsustainable for our members.”

The APAS estimates were calculated using key indirect costs that are not exempt from carbon taxation, such as rail and road transportation, electricity, and grain drying. These costs would be even higher in years like 2019, when most of the grain and oilseed crop required grain drying due to a wet harvest.

APAS plans to develop cost estimates for other crop and livestock commodities over the coming months as part of a concerted effort to obtain further exemptions and other forms of financial relief from the added costs.

“The carbon tax is designed to provide incentives to reduce energy consumption, but these dramatic cost increases will decrease our ability to adopt the new technologies that help us do just that,” continued Lewis. “In some cases, producers will pay for efficiency gains like high-capacity grain hopper cars through their freight rates, and yet those cost savings will go to the railways.”

In addition to the economic impacts, Lewis also expressed concern about the potential environmental consequences of the carbon tax. “When you add costs to a producer’s bottom line it creates incentives for them to convert grasslands and other natural carbon sinks into cropland just to remain viable,” he said. “That works directly against the goals of the policy. Agricultural producers have waited decades to see some recognition of our environmental stewardship, and we have seen a lot of lip service, but not much concrete action.”

Lewis concluded that APAS has been working very hard on engaging federal decision makers on the issue of carbon taxation, and that this advocacy would continue until the problem is addressed. “Our members expect us to stay on this issue until our concerns are heard.”

You can find the complete APAS calculations at apas.ca/carbontax.

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For more information or to schedule an interview, please contact:

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Background: Founded in 2000 by farmers, APAS is Saskatchewan’s democratic, non-partisan agricultural policy and advocacy organization. APAS tackles agriculture’s most important problems and offers practical solutions to provincial and national decision makers.

BACKGROUND:

Preliminary Costs of the Federal Carbon Backstop on Saskatchewan Agriculture



Background

- Starting April 1, 2019, the Federal backstop carbon tax was applied in Saskatchewan.
- The tax started at \$20/tonne of emissions in 2019 and increases by \$10/tonne per year until it reaches \$50/tonne in 2022. The tax then begins increase \$15/tonne until it reaches \$170/tonne in 2030.
- An exemption for farm fuel is provided upfront through the use of exemption certificates. The certificate allows a registered distributor to deliver gasoline or light fuel oil (e.g., diesel) to a farm or cardlock provided the fuel is “used exclusively in the operation of eligible farming machinery and for eligible farming activities.”
- Although farm fuel is exempt from the carbon tax, farmers will still face significant cost increases on other fuel sources, including heating fuel, electricity generation, natural gas and propane for grain drying. Producers will also incur indirect costs as railways and other service providers pass the carbon tax down to producers through lower agricultural commodity prices and higher input bills and service charges.
- Based on the APAS example, a \$20/tonne federal carbon tax cost the Saskatchewan grain farm **\$1.74 per acre in 2019**. These costs increased to **\$2.93 in 2021** (\$40/tonne), rising to **\$12.52 per acre by 2030** (\$170/tonne).
- Research on cost estimates for livestock production are underway.

Table 1. Fuel Charge Rates Applied to Saskatchewan – Effective April 1, 2019

| | 2019 | 2020 | 2021 | 2022 |
|-----------------------------------|-------------|-------------|-------------|-------------|
| Natural gas \$/cubic metre | \$0.0391 | \$0.0587 | \$0.0783 | \$0.0979 |
| Gasoline- \$/litre | \$0.0442 | \$0.0663 | \$0.0884 | \$0.1105 |
| Propane- \$/litre | \$0.0310 | \$0.0464 | \$0.0619 | \$0.0774 |
| Diesel- \$/litre | \$0.0548 | \$0.0821 | \$0.1095 | \$0.1369 |

What potential costs could an agricultural producer in Saskatchewan face?

Fertilizer

- Major Canadian fertilizer plants are subject to the output-based pricing system (OBPS) and are assessed to be in a “high competitive risk category” that allows them to emit 90% of their sector’s average emissions intensity with no additional cost. More information is forthcoming.

Grain Drying

- At \$20 tonne carbon tax, grain drying cost an additional \$0.52/acre in 2019, increasing to \$1.04/acre in 2021 at \$40 tonne and \$4.44/acre at \$170 tax rate.

Heating and Electricity

- Electricity costs increased by \$0.06/acre in 2019 and will increase \$0.12/acre in 2021 and \$0.50/acre in 2030.

- Heating costs increased \$0.15/acre in 2019 and will increase by \$0.30/acre in 2021 and \$1.30 acre by 2030.

Rail Freight

- Using an average length of haul of 1,150 miles to export position and assuming a 65.2 bu/ac wheat crop, the carbon tax resulted in additional freight costs of \$0.85 an acre in 2019, increasing to \$1.15 for 2021 and \$4.90/acre by 2030.

Trucking

- Hauling spring wheat from farm to elevator, travelling on average 63km one way (one way loaded, one way empty) increased trucking costs by \$0.16/acre in 2019, \$0.32/acre in 2021 and \$1.38/acre in 2030.

What costs are unknown or still to be determined?

- Indirect costs of transporting inputs
- Transportation costs for livestock and livestock feed
- Increased costs on processors and product handlers (elevators, canola crushers, mills, meat packers), translating into lower commodity prices at the farmgate.
- Cost increases for manufactured products like machinery
- Increased costs for custom services

What assumptions were made when calculating these costing numbers?

| Table 2. Calculation of APAS Cost Estimates | | | | |
|---|--------------------|--------------------|--------------------|---|
| | 2019 \$20/tonne | 2021 \$30/tonne | 2030 \$50/tonne | Assumptions |
| Electricity | \$0.06/acre | \$0.12/acre | \$0.50/acre | <p>-Estimated 2019 total cost of \$2.74/acre^{1,2}</p> <p>-The \$20/tonne levy resulted in a carbon tax charge of 0.2994 cents /Kwh, representing an avg. cost increase of 2.1% for 2019. The cost increases \$0.03/acre annually from 2019 to 2023, and \$0.045/acre annually from 2023 to 2030.</p> <p>- (\$2.74/acre) * (2.1% increase) = \$0.06 /acre</p> <p>-At \$40/tonne, estimated cost increase of \$0.06/acre over 2019</p> <p>- (\$0.06/acre) + (\$0.06) = \$0.12/acre</p> <p>-At \$170/tonne, estimated cost increase \$0.375/acre over 2021:</p> <p>- (\$0.12/acre) + (0.375/ acre = \$0.495/acre</p> |
| Heating | \$0.15/acre | \$0.30/acre | \$1.30/acre | <p>- Estimated current total cost of \$0.39/acre^{1,2}</p> <p>- Natural Gas Rate April 1, 2019: \$0.0998 Cost/m3</p> <p>- Carbon Levy (\$20/tonne): \$0.0391 Cost/m3 Natural Gas (40% increase)</p> <p>- (\$0.39 /acre) * (40% increase) = \$0.15 /acre</p> <p>At \$40/tonne (\$0.0783 Cost/m3), estimated cost increase of 78%</p> <p>- (\$0.39/acre) * (78% increase) = \$0.30/acre</p> <p>At \$170/tonne (\$0.333 Cost/m3), estimated cost increase of 100%</p> <p>- (\$0.39/acre) * (334% increase) = \$1.30/acre</p> |
| Grain Drying | \$0.52/acre | \$1.04/acre | \$4.44/acre | <p>- 65.2 bu per acre wheat yield, weighing 60 lbs./bu to be dried 5 points, removing 3.0 lbs water/bu</p> <p>-2000 average Btu required to remove 1 lb. Water</p> <p>- Propane energy conversion of 25.3 MJ/L</p> <p>- \$0.031/L propane carbon tax for 2019, \$0.0619/L in 2021, and \$0.263/L for 2030 = \$0.52/acre in 2019 increasing to \$1.04/acre in 2021 and \$4.44/acre by 2030.</p> |
| Rail Freight | \$0.85/acre | \$1.15/acre | \$4.90/acre | <p>- Average length of haul for Saskatchewan grain to export position: 1,150 miles</p> <p>- 2021 Railway Carbon Tax Surcharge Rates: \$0.0465/mile in Saskatchewan and Alberta (65% of haul) miles); \$0.0635/ mile in BC (35% of haul)³</p> <p>- (\$60.32 per rail car) ÷ (3410 bushels/rail car) = \$0.0177/bushel</p> <p>- (65.2 bu/acre)*(\$0.0177/bushel) = \$1.15/acre</p> <p>- At \$50/tonne, estimated cost is \$256.35 per rail car (\$0.0244/bushel)</p> <p>- (65.2 bu/acre)*(\$0.0752/bushel) = \$4.90/acre</p> |

¹ 2019 Saskatchewan Crop Planning Guide estimate \$4.90 per acre "Utilities"

² "Utilities" breakdown (56% electricity, 28% telephone, 16% heating) as per discussion with Saskatchewan Ministry of Agriculture

³ CN and CP Carbon Tax and Environmental Surcharge Tariffs Available Online

| | | | | |
|-------------------------|--------------------|--------------------|--------------------|---|
| Trucking Freight | \$0.16/acre | \$0.32/acre | \$1.38/acre | <p>In 2019 at \$20/tonne (\$0.055 carbon cost/litre of diesel):</p> <ul style="list-style-type: none"> - Hauling fully loaded Super B of loaded wheat 63km (39.4 miles) to elevator⁴ (39.4 miles) / 0.99 miles/litre⁵ = 39.8 litres farm to elevator (39.8 litres farm to elevator) * (\$0.055 carbon cost/litre of diesel) = \$2.20 in carbon costs - An empty Super B uses 40% less fuel (39.4 miles) / 1.39 miles/litre⁵ = 28.3 litres to farm (from elevator) (28.3 litres to farm) * (\$0.055 carbon cost/litre of diesel) = \$1.55 in carbon costs - Carbon costs for round trip \$2.20 + \$1.55 = \$3.75 (\$3.75 per trip) ÷ (1500 bushels/trip⁶) = \$0.0025 / bushel (\$0.0025 / bushel) * (65.2 bushels/acre) = \$0.16/acre <p>In 2020 at \$40/tonne (\$0.1095 carbon cost/litre of diesel):</p> <p>= \$0.32/acre</p> <p>In 2030 at \$170/tonne (\$0.4654 carbon cost/litre of diesel):</p> <p>= \$1.38/acre</p> |
|-------------------------|--------------------|--------------------|--------------------|---|

⁴ Average distance from farm to elevator in Saskatchewan as per 2002 Quorum report Commercial Trucking Rates in the Movement of Western Canadian Grain

⁵ 4.5 mpg or 0.99 mpl consumption by fully loaded Super B and 1.39 mpl for an empty Super B as per discussion with industry

⁶ 1500 bushel capacity for an average Super B as per discussion with industry