

Advancing the Farm Sector Through Improved Switchgrass Varieties

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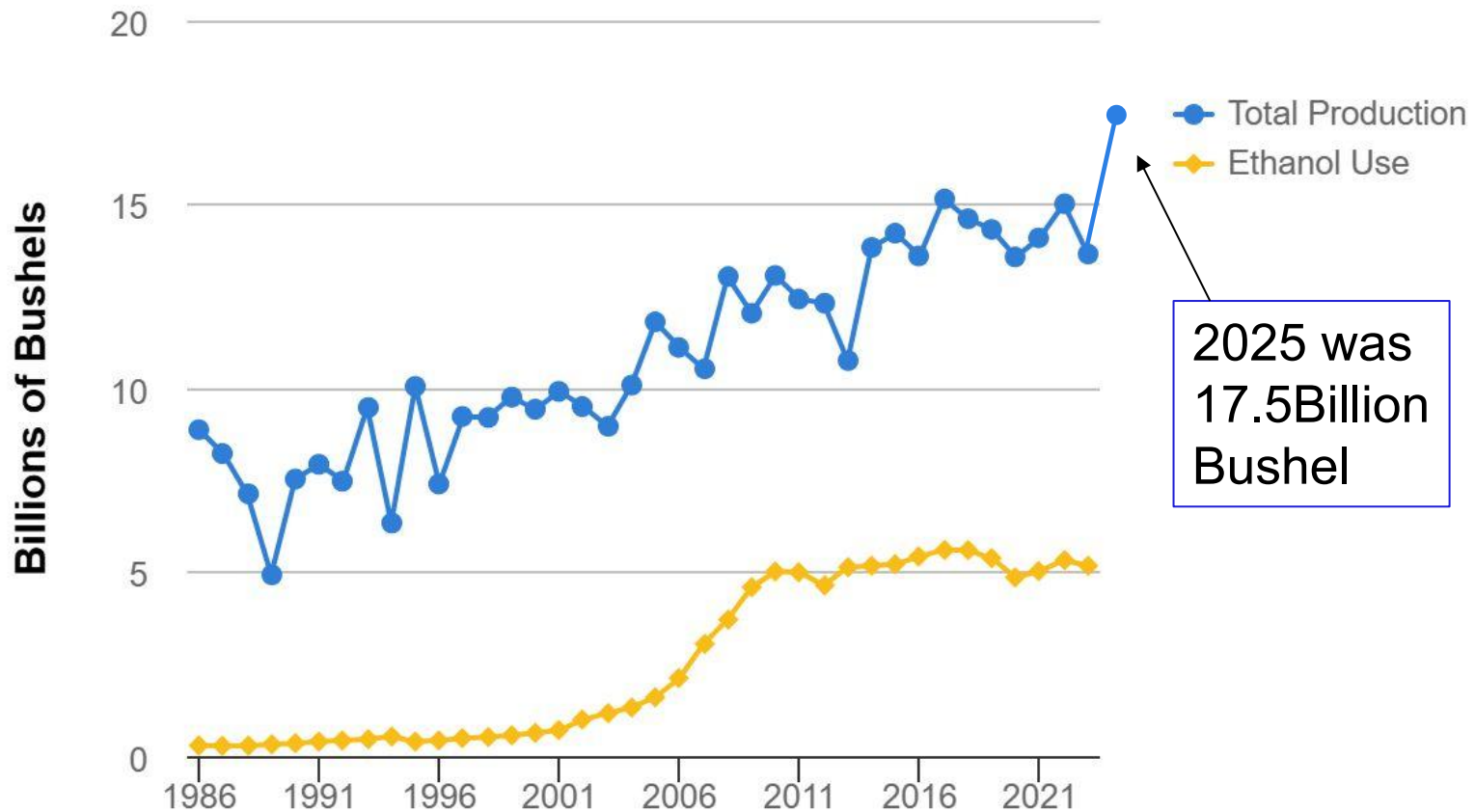
Why Scale Up a New AG Industry for Ontario?

- Need to Develop Non-Food/Bioindustrial markets
- Emerging Switchgrass Seed Export Industry
- Strengthen the Agri-Food Sector (Mainly dairy sector in Ont.)



Is there a Crop Demand Problem Emerging like the 1990's?

U.S. Corn Production and Portion Used for Fuel Ethanol



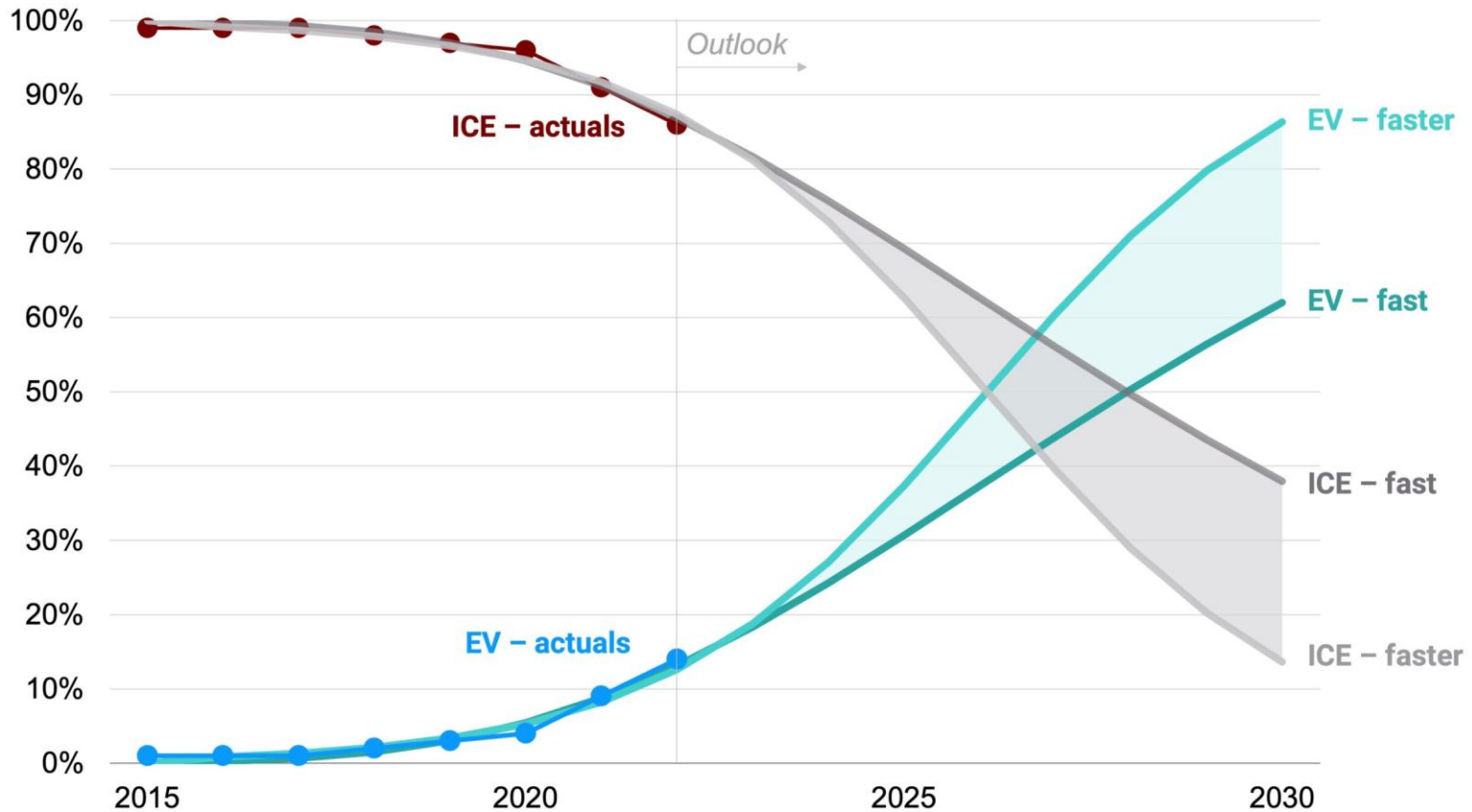
2025 was
17.5 Billion
Bushel

Last updated: January 2024
Printed on: October 20, 2025

Highcharts.com

Is Ethanol Demand in Further Trouble?

Global EV and ICE market share forecast (%)



RMI - Energy. Transformed.

EV: electric vehicle

ICE: Internal Combustion Engine

Source: IEA, RMI forecasts

The Forest Based Pulp Sector has a Fibre Supply Problem

Pulp Mills across Canada are closing as there simply isn't enough fibre left



REAP-Canada has made major progress in breeding for pulping applications.. Future looks bright for new Ag-Fiber mills in Europe and North America.



New RC Big Bluestem & RC Switchgrass for Pulp and Paper





Seven Improved RC Switchgrass Varieties have been Developed (5 Commercialized and 2 in seed scale up)

RC Haven
138 days

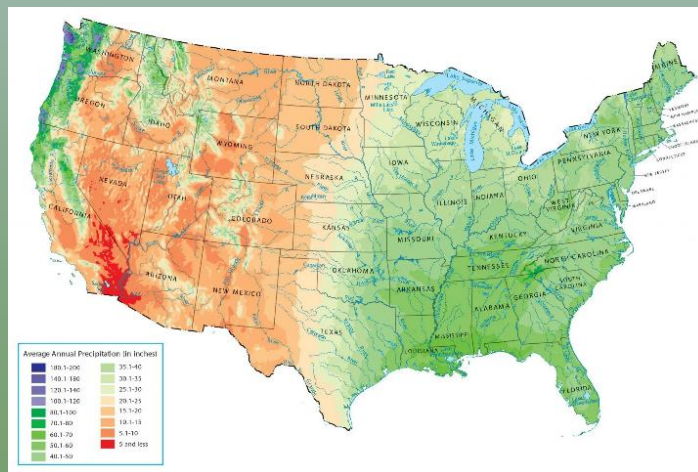
RC Tecumseh
141 days

RC Sundance
145 days

RC Chippewa
150 days

RC Big Rock
154 Days

(Days from May 1 to seed maturity)

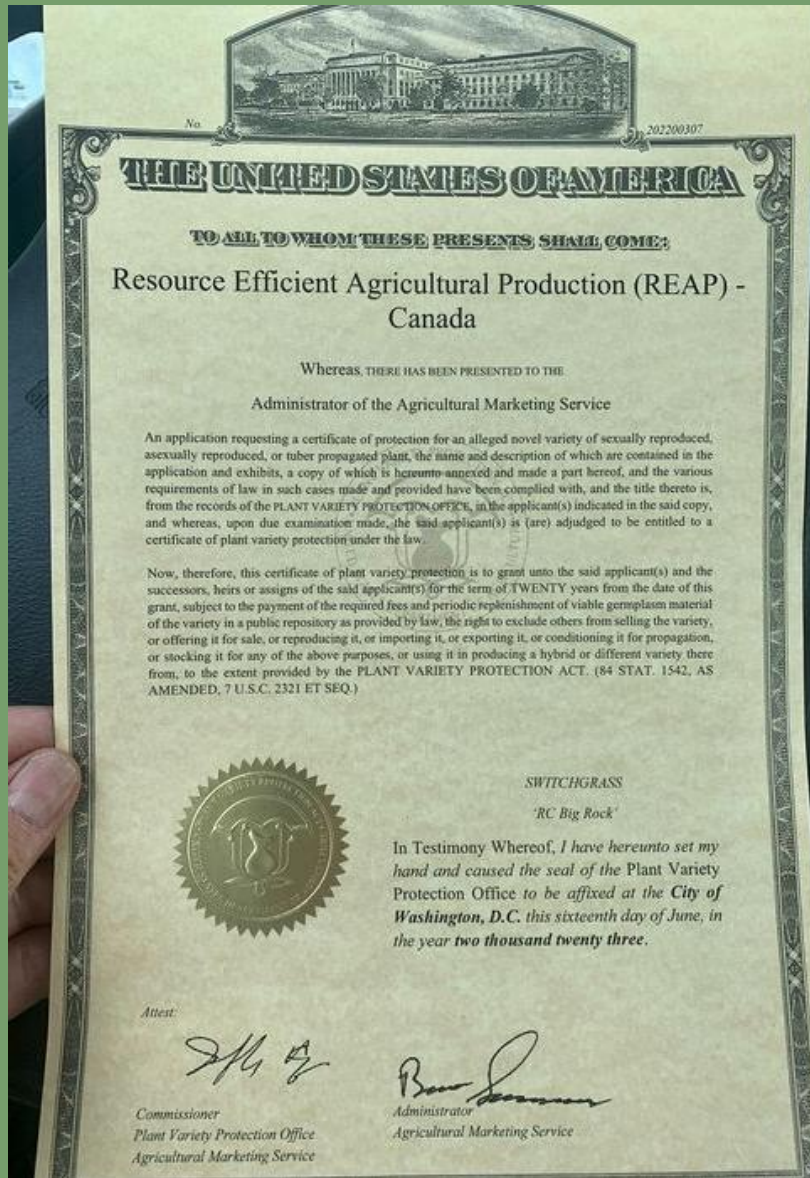


Plant Breeders Rights Trials



- 2023 RC Big Rock and RC Chippewa
- 2024 RC Tecumseh
- 2025 RC Sundance
- 2026 RC Haven

6 Plant Breeders Rights Protections



RC Big Rock SWITCHGRASS SEED (*Panicum virgatum*)

Lot: RC-BR-NF1-23

Purity: 99.96%

Inert material: 0.04%

Other crop seed: 0.00%

Other weed seed: 0.00%

Noxious weed seed: None found

Total viable: 92%

Germination: 68%

Dormant: 24%

Pure Live Seed: 91.96%

Test date: 11/2023

Seed count: 175,000 per pound

Origin: Ontario, Canada

50 lb Net weight

Nott Farms Ltd.

80171 Kinburn Line

Clinton, Ontario, Canada

"Unauthorized Propagation Prohibited"
U.S. Protected Variety (PVP 94)



Scaling Up Seed Production

In 2026 there will be ~1000 Acres



Ontario has an Ideal Climate for Growing High Quality Warm Season Grass Seed for Export



RC Sundance: New 2025 Release

- Combines early maturity and high yield and a great new choice for Ontario
- Mainly targeted for September harvest for dry cow and heifer feed at physiological maturity



Fall Harvest at Physiological Maturity



- **Hard dough stage in seed**
- **Grass color turns yellow-green**





Switchgrass Varieties for Fall Harvesting



**High yielding early maturing switchgrass
can reach physiological maturity in September**



**The crop at the farm of Don Nott in Clinton, Ontario
was cut Sept 17 into a wide swath & baled Sept 21**



The field was raked the morning of baling



The field yielded 6 ton/acre (13.3t/ha) and the bales weighed 960 pounds at 8% moisture



New Genetics are Coming!





- <https://www.youtube.com/watch?v=jPKRAP8TcJM>



REAP-Canada

Resource Efficient Agricultural Production

Research Partners in WSG Plant Improvement

