

Scaling Up Improved Switchgrass to Develop the Seed Market in Ontario

by Don Nott, Nott Farms
and Roger Samson, REAP-Canada

OBPC Annual Meeting, Milton, Ont., March 21, 2023



Scaling Up a New AG Industry for Ontario

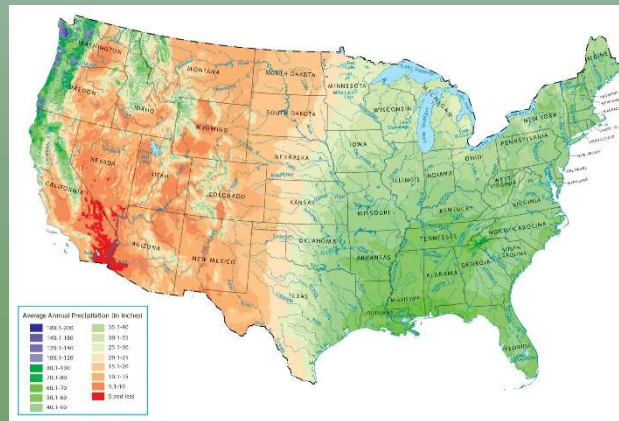
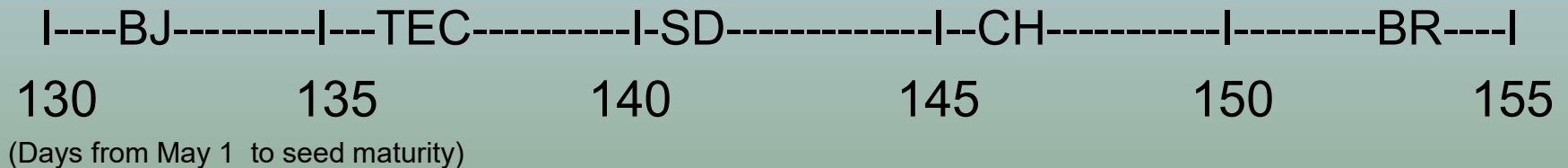
- Regional performance testing
- Plant Breeders Rights Trials (for 20 year protection) in NA and Europe
- Ontario Growers Seed Scale Up and Marketing (Ron Toonders, Urs Eggimann, Nott Farms)



Five New Improved Upland Switchgrass Varieties have been Developed

(4 Commercialized and 1 in seed scale up)

RC Blue Jacket	RC Tecumseh	RC Sundance	RC Chippewa	RC Big Rock
132 days	137 days	141 days	146 days	153 Days



Breeding Continues to Develop Faster and Higher Yielding Varieties



Big Bluestem Under Development



Elite Big Bluestem
Selection



New Varieties like RC Big Rock can now produce 3-5 t/ha in the seeding year.

Performance Testing at 7 Sites in Eastern Canada

(including la Pocatiere)

206

207

RC Chippewa (2020 release)

Cave-In-Rock (1974 release)

Performance Testing in 5 Midwest

Locations: SD, IA, NE, IL (including Champaign, Illinois)



Plant Breeders Rights (PBR) Trials



**In 2023 first two PBR's
approved for 20 year
protection and 3rd
submitted to USDA**

RC Tecumseh: 2022 Release being Exported



RC Sundance: New 2023 Release

- Early maturity and high yield
- Broad adaptability (South Dakota to Maritimes)
- Targeted for fall harvest dry cow & heifer feed



1st year RC Sundance



RC Sundance vs RC Big Rock
(early) (late)

A New Seed Industry is Emerging in Ontario



Can We Grow the Ontario Switchgrass Seed Industry from ~ \$1 M to \$10-20 M Per Year?



Good Rainfall
Good Soils > **Great Seed**
Good Weather



REAP-Canada

Resource Efficient Agricultural Production

Research Partners in WSG Plant Improvement

