PERENNIAL GRAINS

Soon to be in our fields and on our plates - a first in Canada.

Intermediate wheatgrass (IWG) provides the soil ecological benefits of a perennial while yielding grain for milling like an annual crop.

**MARKET**
Specialty grain with environmental attributes
Kernza® grain has been used to make flour, popped grain, cereal, crackers and even beer!

**GROUND LEVEL**

**KERNZA® FAST FACTS**

- ~4m ROOT LENGTH
- ~1,000 kg/ha SEED YIELD
- 5-6 YRS STAND DURATION
- 9-21% PROTEIN CONTENT
- UP TO...
  - 2x OMEGA-3 FATTY ACIDS
  - 10x FOLATE

Compared with annual wheats

**TIMELINE TO COMMERCIAL CULTIVAR**

<table>
<thead>
<tr>
<th>2011</th>
<th>2019</th>
<th>2020</th>
<th>2025</th>
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<tbody>
<tr>
<td>IWG breeding program launched at UM selecting Prairie-hardy germplasm for consistent high yield, high quality grain protein</td>
<td>3 Manitoba producers seed small acreages of advanced IWG for grain, agronomics</td>
<td>First breeder plots with most advanced line</td>
<td>Anticipated release of first Canadian IWG commercial cultivar</td>
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**RESEARCH LEAD:** Doug Cattani, plant scientist, University of Manitoba

**DIG DEEPER!** UM News “Innovative crop researcher captures sustainability award”

MAKEmanitoba.ca