Field pea breeding update
Tom Warkentin
January 17, 2019
World dry pea production in 2017
(Total: 16.2 million tonnes)
World vegetable pea production 2017
Total: 20.7 million tonnes

- China
- India
- Other
- USA
- UK
- Egypt
- France
- Pakistan
- Algeria
- Peru
Pea Breeding Objectives

Field: yield, disease resistance, lodging resistance

Market quality: visual, nutritional, functional
Crop Development Centre –

Taking aim at the Future

Pea

- Improved visual and nutritional profiles of the seed
- New varieties targeting niche and specialty markets and uses
- Durable disease resistance and improved agronomic performance
- Yield and protein improvements
Insured acres in SK in 2018 - yellow pea

90% of insured acres in SK planted to U of S varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>Years</th>
<th>Yield (% CDC Amarillo)</th>
<th>Lodging (1-9)</th>
<th>Seed coat Breakage</th>
<th>Protein vs. Amarillo</th>
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### Insured acres in SK in 2018 - green pea

![Bar chart showing the insured acres for different grain crops in 2018.]

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Saskatchewan Crop Insurance Corp., 2018; Varieties of Grain Crops, 2019; CDC pulse breeding
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<th>Top 15 varieties by Acres in 2018</th>
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<td>1,244,816</td>
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86% of insured acres in Alberta planted to U of S varieties
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<th>Mean</th>
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# TOP YIELDING GREEN PEA VARIETIES IN SK

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<th>North</th>
<th>Mean</th>
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<th>Prot. vs.</th>
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Varieties of Grain Crops, 2019; CDC pulse breeding (unpublished data)
### 2017-2018 Co-op A

Agronomic performance summary for entries in the 2017-2018 Field Pea Cooperative Registration Test "A"

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New pea research supported

- Pea Protein Omics Determination (P-POD)
- Biofortified pea in athlete diets
- Pea glycemic index
- Improved N-fix in pea
Pulse crop breeding staff - 2018

Photo: Gloria Gingera
Acknowledgements

Bunyamin Tar’an
Kirstin Bett
Bert Vandenberg
Sabine Banniza

Pulse crop breeding lab
Pulse crop molecular lab
Grains innovation lab
Pulse crop pathology lab
Pulse crop tissue culture lab
Pulse crop graduate students, post-docs
Breeder seed crew
Plant Sciences admin staff

National/international collaborators