Yellow Field Peas
Just getting started in eastern Nebraska

Nathan Mueller
PhD CCA

Eastern Nebraska Cropping Systems Extension Educator
Yellow Field Peas: Overview

- Why try Yellow Field Peas?
- U.S. and Nebraska Production
- Basics of Management
  - Seed sources & variety selection
  - Planting
  - Weeds
  - Harvest and marketing
- Industry contacts
- More resources

http://croptechcafe.org/fieldpeas
Why Grow Yellow Field Peas
Why grow yellow field peas?

• Diversify traditional corn soybean rotations to increase agronomic sustainability

• Workload management

• Reduce extreme weather risks

• Consider all potential profits streams
  • Similar price as soybeans, but harvested in July
  • Value of forage or double crop following field peas
  • More opportunities for diverse cover crops in late summer/early fall
  • Potential nitrogen credit for proceeding forage crop
  • Corn and soybean yield improvement in 3-yr rotations are generally higher

• Weed control, herbicide cost, resistance management
  • Palmer Amaranth, & Waterhemp
### Rotation Timeline

<table>
<thead>
<tr>
<th>Soybean</th>
<th>Corn</th>
<th>Field Peas</th>
<th>CC/F/SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>JFMAM</td>
<td>JFMAM</td>
<td>JFMAM</td>
</tr>
<tr>
<td>Year 2</td>
<td>JFMAM</td>
<td>JFMAM</td>
<td>JFMAM</td>
</tr>
<tr>
<td>Year 3</td>
<td>JFMAM</td>
<td>JFMAM</td>
<td>JFMAM</td>
</tr>
</tbody>
</table>

Abbreviations: CC, Cover Crops; F, Forages; SC, Short Season Crops.

### Advantages of Double Cropping

- Keep cash crop in the system (field peas)
- More time to grow cover crops (at least 4 months)
- Opportunity to grazing (financial diversification)
- Possibility of short season crops
Demand for Field Peas

- Many uses
  - Human edible market
  - Pet food
  - Livestock food (swine)
  - Cover crop seed
Field Pea Acres in the United States and Nebraska
United States Production Regions

USA Pulse Growing Regions by County, 2016

Source: USDA/FSA

Total Acreage 3,948,500

Pulse Acreage
0 - 1,000
1,000 - 35,000
35,000 - 85,000
85,000 - 125,000
125,000 - 155,000
155,000 - 185,000
> 185,000
CropScape Estimate Acres in 2017

USDA-NASS: In 2018, harvested acres are estimated at 62,000 acres, up 11 percent from the previous year.
Field Pea Grower’s Guide
Field Pea Grower’s Guide - SD

- SDSU iGrow Production and Utilization of Field Peas in South Dakota
- 11 pages
Videos from iGrow - Seeding

Growing Field Peas in South Dakota
Field Pea Grower’s Guide - NE

- CropWatch – cropwatch.unl.edu
  - Numerous articles
  - Use the search feature

If you’re planning to add field peas to your crop rotation this year, check out these reports of field research and recommendations from west central Nebraska.

Field Pea Planting and Production Resources
MARCH 23, 2018

If you’re considering adding field peas to a rotation this year, you may be interested in these articles by Extension Educator Strahinja Stepanovic, reporting on Nebraska field pea research.

Field Pea Variety Trial Results

Research findings show benefits in soil nutrient cycling, water infiltration, and microbial activity from replacing
Farmer’s Business Network Guide

PLANTING and GROWING YELLOW PEAS

The Yellow Pea Guide lays out the benefits of growing Yellow Peas, and what to consider at Pre-planting, Planting, and Harvest.

In this guide:

- The three benefits of growing Yellow Peas including soil health benefits
- Information on Yellow Pea seed selection
- Information on recommended planting, application and harvest practices.

First Name* Nathan
Last Name* Mueller

What best describes your business?*
- Please Select -

DOWNLOAD

When you provide us your mobile phone number, we have your permission to contact you at that number about FBN offers, products, services through text message and phone. Message and data rates may apply.
Seed Sources and Variety Selection
Certified Seed

- Nebraska Crop Improvement Association
  - [http://www.necrop.org](http://www.necrop.org)
  - 2018-19 Nebraska Certified Seed Book available
  - Closest dealer is Cast Farms near Beaver Crossing
University of Nebraska Variety Testing

- Field Pea Variety Testing
- Locations
  - Mead – 2018
  - Western and Central Nebraska online for 2013-2018
- Resources
  - https://cropwatch.unl.edu/varietytest
  - http://igrow.org/agronomy/profit-tips/variety-trial-results/
2018 Eastern Nebraska Research and Extension Center near Mead

• 2018 trial Information
  • Silt loam – silty clay loam soil
  • No-till after corn
  • Planting date = April 5
  • Seeding rate = 310,000 PLS/acre
  • Seeding depth = 1.5-2 inches
  • Inoculation = liquid and peat inoculant at 2x rate
  • Herbicide program = Sharpen 2 oz + Prowl 2 pt
  • Harvest date = July 12th
  • Yield adjusted to 13% moisture, 1 bushel = 60 lbs
## 2018 Eastern Nebraska Research and Extension Center near Mead

<table>
<thead>
<tr>
<th>Variety</th>
<th>Brand</th>
<th>Flowering rating</th>
<th>Maturity (1-10)</th>
<th>Harvest Moisture</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Agassiz</td>
<td>Meridan Seed</td>
<td>Early</td>
<td>8</td>
<td>13.7</td>
<td>48</td>
</tr>
<tr>
<td>AAC Profit</td>
<td>Great Northern Ag</td>
<td>Late</td>
<td>6</td>
<td>23.2</td>
<td>45</td>
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<tr>
<td>Jetset</td>
<td>Meridan Seed</td>
<td>Early</td>
<td>10</td>
<td>12.7</td>
<td>44</td>
</tr>
<tr>
<td>AC Earlyystar</td>
<td>Meridan Seed</td>
<td>Early</td>
<td>8</td>
<td>14.1</td>
<td>42</td>
</tr>
<tr>
<td>CDC Inca</td>
<td>Meridan Seed</td>
<td>Late</td>
<td>6</td>
<td>15.8</td>
<td>42</td>
</tr>
<tr>
<td>Hyline</td>
<td>Great Northern Ag</td>
<td>Mid</td>
<td>7</td>
<td>19.3</td>
<td>41</td>
</tr>
<tr>
<td>AAC Carver</td>
<td>Meridan Seed</td>
<td>Mid</td>
<td>7</td>
<td>14.8</td>
<td>41</td>
</tr>
<tr>
<td><strong>LSD (0.05)</strong></td>
<td></td>
<td></td>
<td>3</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

17 more varieties tested including seed from Montech, Pulse USA, Montana Integrity, and NS seeds

View at [https://cropwatch.unl.edu/2018/double-cropping-pulses](https://cropwatch.unl.edu/2018/double-cropping-pulses)
AC Agassiz (2006)

Traits

• Semi-leafless w/white flower
• Yellow cotyledons
• Medium-sized seed
• Medium maturity
• Excellent yield potential with very good lodging resistance
• Resistant to powdery mildew
• Susceptible to Fusarium wilt and Ascochyta/Mycosphaerella blight
AC Earlystar

No picture available

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Notes
- Available from Cast Farms (David Cast) near Beaver Crossing 402-641-8946
Planting Practices
Crop Insurance

- Coverage in other counties may also be available by individual written agreement
- Contact your crop insurance agent for details
- Planting – March 15 to April 30
- Resource:
  http://croptechcafe.org/fieldpeas
Planting Practices

- Handle with care – Reduce splitting and cracks
  - Handle warm seed if possible
  - Always use belts
  - Look at drill and pad areas if possible. Work with manufacture

- Planting date
  - March 15 to April 30, earlier the better
  - Can start once soils reach 40 degrees

- Seeding rate
  - 300,000 to 350,000 pure live seeds per acre
  - Uniform stand helps reducing lodging and increase harvest efficiency

- Planting depth
  - 2 to 2.5” into moisture
Fungicide treated seed

• Recommended for Pythium and Rhizoctonia

• Check for compatibility with inoculant
  • “Consulting the seed treatment label for its effect on rhizobium inoculants is very important.” NDSU
  • “Most seed treatments have little or no effect on rhizobium inoculants and nodulation; however, some seed treatments are very toxic to all formulations of inoculants.” NDSU
  • “Allowing the seed treatment to dry fully and adding inoculants just prior to planting always is recommended.” NDSU
Soil Fertility and Plant Nutrition
Inoculation

- Field peas form symbiosis with a different rhizobia species than soybeans

- Double inoculate on virgin ground
  - Use both liquid and peat inoculation right before planting

- Check product shelf life, storage limits, and recommendation application timing based on the product label
Nutrient Management

• Soil test phosphorus (P) - SDSU
  • Similar to corn
  • > 21 ppm Bray P1 = 0 lbs/ac

• Soil test potassium (K) - SDSU
  • > 160 ppm = 0 lbs/ac

• Sulfur - SDSU
  • 15 pounds of S/acre,
  • 60 lbs of ammonium sulfate per acre

• Soil test pH - SDSU
  • > 5.5 recommended
Weed Management and Herbicides
Weed Management in Field Peas

• Utilize the 2018 or 2019 Guide for Weed, Disease and Insect Management in Nebraska Guide
  • Page 102 and 103

• Field Peas – A guide to herbicide carryover and herbicide efficacy
Industry Contacts
Industry Contacts

- Nebraska Markets - Hastings
  - Gavilon – Goodlife Grains and Pulses
    - Mason Nicklaus - 402-463-8162
  - Farmers Business Network FBN Yellow Pea Program
    - 844-200-3276
    - claygovier@gmail.com
Discussion and Needs Assessment
Next Steps…

• Growing field peas in eastern Nebraska will not be without challenges!
• Utilize resources highlighted in this presentation
• Attend the upcoming Wheat and Pulse Crop Field Day
  • Eastern Nebraska Research and Extension Field Day near Mead
  • June 12 or 13
• Attend a conference in 2020
  • 2019 Nebraska Pulse Crops Expo was Jan. 7 in Kearney
  • Presentations will be posted on CropWatch
• Utilize University faculty
2019 Wheat and Pulse Crop Field Day – June 12 or 13th

Pulses - ENREC

Field Peas

Chickpeas

Lentils
Yellow Field Peas: Summary

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  - Seed sources & variety selection
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  - Weeds
  - Harvest and marketing
- Industry contacts
- Utilize all resources

http://croptechcafe.org/fieldpeas
Thank You!