Seeding Depth:
Firm seed to soil contact is critical when seeding peas. Peas take over three times more water for germination than small grains. Peas should be seeded at least an inch into moisture and never seeded at the interface where moist soil meets dry soil. Optimum seeding depth for peas is 1 ½ to 2 inches. If top soil conditions are dry, peas can be seeded 3 inches deep.

Seed Rate/Plant Population:
Most pea varieties will have 1600 to 2400 seeds per pound with 2000 seeds per pound considered average. The seeding rate of 300,000 pure live seeds per acre is considered the standard, especially if a seed treatment is used. The optimum plant population is 7 to 8 established plants per square foot. If seeding untreated peas into cold soils with heavy residue then a seeding rate of 350,000 pure live seed is recommended. Most common field pea seeding rates will equal 2 ½ to 3 bushels per acre. Seeding heavier than 400,000 PLS/A should be avoided for an increased risk of lodging will occur. A minimum stand is 3 to 4 plants per square foot; however, expect plants to be spaced far apart to where lodging will be a significant factor.

Seed Treatment Considerations:
If there has been an issue with pea production in recent years it has been poor stands. Peas are generally seeded first into cold soils with heavy residue. Peas will germinate at 38°F soil temperature. If soil temperatures stay cold, low 40’s, it will take 14+ days for peas to emerge. If seeding peas into cold wet soils or onto broadleaf (canola, flax, etc.) ground, seed treatments should be highly considered, especially under no-till.

Seed treatments such as Apron or Allegiance provide excellent control of soil-borne diseases such as pythium. Pythium has caused poor stands/seed rot recently in peas, especially when emergence is delayed due to cold soils. Maxim or Trilex can be added to apron or allegiance to provide control of rhizoctonia and fusarium. These seed treatments, when used properly, are safe on inoculants. When using a seed treatment the granule inoculant is preferred.

If using liquid or peat base inoculants, allow the seed treatment to dry before applying the inoculant to the seed. Do not apply seed treatments and liquid/peat inoculants at the same time.
Legislative Action Fund
The Legislative Action Fund is extremely important to the livelihood of the pulse industry in Montana and North Dakota. Contributions to the legislative action fund are used directly towards lobbying efforts on issues affecting the pulse crop industry. In the past, these funds have been used to secure the pulse loan program, federal marketing funds and research funding. Contact the NPGA office for more information. Please consider supporting our legislative efforts!

THANK YOU:

2009 LEGISLATIVE ACTION FUND CONTRIBUTORS
Mark Birdsall     Donald Kaldahl
Hagen Brothers     Dean Milbrath
M&H Helming Farms  Martin L. Kitzman
Bruins Farms       Greg Morlock
Wayne Deering      Ruben Olson
Meilon Hildebrant  Kent Pederson
Richard Johnson    Gene F. Rudolf

Yellow Field Peas
- Industry Leader
- Broadly Adapted
- Unmatched Quality
- Medium Seed Size

SW Midas
- Early Maturity
- Performs Well in MT & SD
- Very Durable Seed Coat
- Medium Seed Size

SW Salute
- Early Maturity
- Average Standability
- The Pea if Hot & Dry
- Medium Seed Size

Green Field Peas
- The New Industry Std.
- Average Agronomics
- "Closed Loop" Contract
- Small Seed Size

Cruiser
- The Old Industry Std.
- At Home in Montana
- Bleach Resistant
- Small Seed Size

K2
- Broadly Adapted; Quality
- Small Seed Size

CDC Striker
- Improved Agronomics
- Medium Seed Size
Healthy Kitchens - Healthy Lives

Kaye Effertz from the NPGA and Jennifer William from USA Dry Pea and Lentil Council recently exhibited at the Healthy Kitchens for Healthy Lives program in St. Helena, CA on April 2-5, 2009. The event titled “Caring for Our Patients and Ourselves” was an educational conference co-sponsored by Harvard Medical School and the Culinary Institute of America. Attendees included 360 physicians, nurses and registered dietitians from around the United States.

The conference was based upon a single topic; food and its relationship to health. Recent trends in societal weight gain, obesity, diabetes and other food-related health conditions made this meeting very significant to the medical community. Topics included healthy eating, preparing delicious meals, lifestyle choices, behaviors and practices that enhance health and quality of life and how to share the information with patients and customers.

Top chefs from around the United States created healthful dishes throughout the conference and at the end of the conference the chefs had presented the group with nearly 200 tasty recipes. The ingredients were very healthy and many of the dishes included legumes such as the chickpea soup with green onion and pasta or the warm lentil salad with the coconut and tomato and lentil burgers.

Overall, the meeting gave the USA Dry Pea and Lentil Council and the NPGA a great opportunity to network with medical professionals from around the United States. The booth showcased peas, lentils and chickpeas and the variety of sizes and colors of pulses produced in the United States. Many of the healthcare professionals were very excited to see the NPGA exhibiting and many were unaware that U.S. producers grow peas, lentils and chickpeas.
INOCULATION
by Dr. Chengci Chen, MSU

Field pea is a legume crop and has the inherent ability to obtain much of its nitrogen requirement from the atmosphere by forming a symbiotic relationship with Rhizobium bacteria in the soil.

Grain legumes vary widely in the proportion of the crop’s total nitrogen requirement that may be met through nitrogen fixation. The total amount of nitrogen fixed by the crop also depends on favorable growing conditions. Hot temperatures and dry soils during the later vegetative and early reproductive stages are especially detrimental for N-fixation. Field peas are among the most highly efficient nitrogen fixing crops and may obtain as much as 80 percent of their total nitrogen requirement under good growing conditions. Inoculated with the appropriate strain of Rhizobium bacteria. Producers must be certain that the inoculums product they obtain is specific for field pea.

Use of an inoculums labeled for soybean, clover or other legumes will not allow the nitrogen fixation process to occur. Inoculants are available in various forms including dry peat, liquid and granular.

Application of inoculants to the seed is an extremely important procedure. Many failures with nitrogen fixation have been associated with improper application technique. Thorough coverage of the seed is critical since seeds not exposed to the bacteria will result in plants unable to fix nitrogen. Inoculants are living organisms, so proper storage and handling is important.

Granular inoculants, a relatively new form of inoculant, has alleviated many of the concerns with inoculants applications. This inoculants is metered through the planter and delivered directly into the seed furrow. Producers should refer to the manufacturer’s package labels to review proper inoculums rate and handling procedure.

Growers should check their fields to determine if inoculation was successful. Normally, nodules will form on the roots two to four weeks after emergence. To check for nodulation, carefully dig up a number of plants and gently clear the soil from the root mass. Nodules will be present both on the primary root and on the lateral roots. Effective nodules will have a pink to red coloration on their interior.

If nodulation does not occur and soil nitrogen levels are low, an application of nitrogen fertilizer over the top may be required to optimize seed yields. Nitrogen fixation will take place from about four weeks after emergence through seed formation.

A recent field study and producer’s experience in Montana and North Dakota indicated that most commercial products had similar effects, but liquid formula inoculums had more chance of failure.

A study was conducted in Montana to investigate Rhizobium bacteria population and nodulation rates in soils after pulse crops. Results indicate that the population varied greatly from field to field. It appears that the nodulation rates drastically decrease once a pea crop is taken out of rotation or a field is left for fallow. However, the nodulation rates did not directly related to the years out of pulse crops; some fields had very low nodulation rates even though the field was only one year out of pulse crop. Therefore, farmers should inoculate pulse crops even though the field is only one or two years out of pea and lentil to ensure good nodulation and high yield.

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Explain your farming operation (crops for 2009 relating to the pulse industry):
We are primarily a malt barley operation and we have grown very little wheat or durum in the last 8 years, unless it was certified seed production. In a typical year we are 60% barley, 40% pulses, with the majority of our pulse acres being chickpeas. We have grown red/green lentils, yellow/green peas, and a few varieties of chickpeas over the years. In 2009 I am reducing pea and lentil acres on our farm and have increased chickpea acres based on new crop contract pricing. Malt barley and pulses go very good together in our area and I have been able to greatly reduce fertilizer costs on barley with pulses in the rotation. At the same time I have increased malting quality through the rotation and multiple fungicide applications.

Why did you want to be elected to the NPGA Board?
Pulse crops have offered a great opportunity for western ND and Montana growers to reduce fertilizer costs on cereal crops, breaking cereal disease and pest cycles. At the same time, pulses have been a profitable crop in most years. Growing and marketing pulses has been challenging, at times, and I hope to contribute to the growth of the industry by doing my part to promote the production of pulses. This includes gathering support for the new pulse breeding program at NDSU, improving our crop insurance programs, as well as opening and expanding markets for processors.

What do you see for the future of the pulse industry in North Dakota?
I think the future of the pulse industry looks promising. I expect a slight increase in acres this year, especially in lentils due to the crop insurance price of 25 cents/lb. With RMA setting the small chickpea price at 20 cents/lb I would expect to see some chickpea growers minimizing their risk and switching to lentils. I also expect the prices we saw in the fall of 2008 will be the prices that we talk about for a long time to come. I am hopeful that we can increase domestic use of our crops and that P.L. 480 funding will continue to be available.

I am optimistic about our 2009 crop with the moisture we have in place. We have not had this much moisture prior to planting in many years.

Meet Your New Board Member
Mark Schmidt
Tioga, ND (District IV)

Wife: Yvonne
Daughters: Naomi – 11, Leah – 8 and Bethany - 5
Son: Jeremiah - 13 months

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NPGA Distributes Research Funding

Each year, the NPGA distributes a request for research proposals in late December to early January to the research and extension communities in both Montana and North Dakota. In February, the NPGA Research Committee met to distribute research funding for the 2009 crop year. This year, there was a tremendous response to the request for proposals with more than $350,000 in total requests for funding pulse related research. For the 2009 growing season, $128,000 was available for distribution through the RFP process. The research committee bases funding decisions on priorities established through survey data completed by the growers. These surveys are distributed at the annual convention as well as MonDak Pulse Days. We encourage all pulse producers to take an active part in the research process by completing these surveys to help determine priorities and needs for the region.

Following are the research projects funded for 2009:

Stability of Heat/Non-Heat Processed Pea Flour (Hall)                     $7,500
Core Set Evaluation of Varieties at NDSU REC’s (Schatz)                 $19,800
Comprehensive Agronomic Research for Pulse Crops In North Dakota (Schatz)   $20,000
Survey, Identification and Management of Pathogens Affecting Pulse Crops (Goswami)  $24,380
Developing Improved Pea Types for Montana and the Northern Great Plains (Weeden)  $8,300
Pea, Lentil & Chickpea Breeding (McPhee)                                 $21,930
On-Farm Pea & Lentil Variety Test in Northeastern Montana (Chen)         $10,800
Evaluation of Fall & Spring Weed Control Options in MT & ND (Jenks/Davis)  $15,290

For more information on prior research projects or funding, please contact the NPGA office.

NPGA Secures $20,000 in Funding

NPGA and NDSU have secured $20,000 through the Agricultural Marketing Service (AMS) of the U.S. Department of Agriculture. The grant is administered through the ND Department of Agriculture. The objective of the grant is to develop product specification for use of pea protein concentrates as egg replacer in commercial refrigerated egg replacement products and in bakery items that utilize eggs. Once NDSU completes the research, the NPGA will use the information to promote pulse ingredients to the national and international food industry. Outreach to the food industry will be achieved through a collaborative effort by NCI, the NPGA and the USA Dry Pea and Lentil Council. Potential projects will include new formulations, materials, nutritional information, trade shows and seminars.
Regional News Bits

Producer Meetings Held in February
Kaye Effertz – Marketing Director

The Northern Pulse Growers Association and the Montana State University Extension Service recently hosted two grower meetings in Malta and Ft. Benton, Montana. The meetings gave Montana and North Dakota scientists and pulse industry representatives a chance to showcase the benefits of raising pulses in the dry land crop areas of Montana. Attendance at the meetings was very good with 23 producers participating in Malta and 39 producers participating in Ft. Benton. Many of the attendees were new to the industry or had not grown pulses in the past several years.

Highlights of the meetings included presentations by Dr. Kevin McPhee, North Dakota State University Pulse Breeder; Dr. Perry Miller, Montana State University Associate Professor – Cropping Systems; Karnes Neill, Montana State University, Central Ag Research Center; Pete Klaiber, USA Dry Pea and Lentil Council; Ryan Nelson, Pro Coop; and Leta Campbell and Matthew Leardini, Columbia Grain. To access these presentations please visit the Northern Pulse Growers Association’s website at www.northernpulse.com.

In addition to the Montana meetings, the NPGA also participated in the Ag Expo in Minot and MonDak Pulse Days in Williston. A scheduled meeting in Carrington was cancelled due to winter weather conditions.

Thank you to our Platinum Sponsors for helping to make the 2009 Producer Meetings a success!

Dakota Dry Bean—Crary ND
JM Grain—Garrison, ND
Novozymes BioAg
United Pulse Trading—Williston, ND

New North Dakota Ag Commissioner

North Dakota Gov. John Hoeven has named Menoken farmer Doug Goehring as North Dakota’s new state Agriculture Commissioner. Goehring succeeds Roger Johnson, who resigned to become president of the National Farmers Union in Washington, D.C. The NPGA would like to thank Roger Johnson for his outstanding dedication and commitment to the pulse industry. He has been a strong advocate for the pulse industry. Best wishes to him in his new endeavors!

New Council Members

New Council Members were elected in April 09 for Districts III & IV. Richard Mickelson, Rolla, ND was elected for District III and James Haux, McClusky, ND was elected for District IV. Richard replaced Dean Milbrath who was termed out and James replaced Stan Myers. The Chairman of the NDDPLC, is Cal Hoff of Richardton, ND, new Vice-Chair is Kevin Haas of Jamestown, ND. The NDDPLC would like to thank Dean Milbrath and Stan Myers for their years of service to the pulse industry.

Tulbek Presents Pulse Seminars in SE Asia

Dr. Mehmet Tulbek, NCI traveled to Indonesia and the Philippines to speak at pulse seminars in Jakarta and Manila in February and March. Tulbek also visited specialty crop milling and food processing companies in Jakarta. The seminars are organized by USA Dry Pea and Lentil Council and US Dry Bean Council. They are designed to help establish a pulse milling and end-product-use industry in SE Asia and to educate industry officials on pulse end-use applications.

Calendar of Events

Summer Pulse Tours

July 7, 2009—9 a.m.-noon (CDT)
North Central Research Extension Center, Minot, ND

July 9, 2009—1:30 p.m.-3:30 p.m. (CDT)
Williston Research Extension Center, Williston, ND

July 10, 2009—9 a.m.-noon (CDT)
Carrington Research Extension Center, Carrington, ND

July 16, 2009
USDA Producer Days
Mandan, ND

January 25 & 26, 2010
NPGA 17th Annual Convention
Holiday Inn, Minot

*For more information on upcoming meetings, visit the NPGA website at www.northernpulse.com

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The NPGA presented Excellence and Service Awards at the 16th Annual Convention. These awards are presented to individuals who have contributed to the success of the pulse industry. The Producer Excellence Award was presented to Rolf Gjorven, Williston, ND; Industry Excellence Award was presented to Leta Campbell, Harlem, MT; and the Researcher Excellence Award was presented to Perry Miller, Bozeman, MT. Congratulations to the recipients of the Excellence Awards!

Service Awards were presented to those who have served on the North Dakota Dry Pea and Lentil Council or NPGA Board. These Awards were presented to Dean Milbrath, District III, our longest running council member who served 10+ years and Jeff Knox who served 6 years on the Board. Congratulations and thank you for all your help and dedication throughout the years.

Board Elections

The NPGA board elections were also held during the annual business meeting in January. Mike Waters, Froid, MT, (District II) and Brian Blessum, Rugby, ND (District VII) were elected to serve another three year term. Mark Schmidt, Tioga, ND (District IV), was elected for his first term as director on the NPGA Board and has replaced Jeff Knox.