

BLAINE SCHMALTZ

Interview conducted in 2013 by Pulse USA Sales & Product Development Director, Emily Paul



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### BACKGROUND OF OPERATION

Schmaltz Family Farm is a diversified family farm near Rugby, ND. The family farm is in its fourth generation. Family management and involvement is a very important aspect of their operation. The farm diversification includes: grain, livestock, grass, organic production, seed production, and pulse seed production.

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#### **What were some factors that drove you into utilizing pulse crops in your rotation?**

Fertility enhancement and rotational concerns, in conjunction with cereal crops and recently corn. After growing dry edible beans for several years we learned how well they fed the soil. We decided to try peas and found out that they provided even better fertility with our rotation. Through utilizing a pulse crop in our rotation, we have developed a much more complete soil biology.

#### **How has the production of pulse crops helped you achieve goals on your operation?**

We have increased our yields on following crops; as well as on the pulse crops, through the inoculum the pulse crops have built up below the soil. Our soil biology has substantially been building below the ground. In the agriculture industry, we often forget what's happening below ground, and focus solely on taking care of what we can see above the ground. What's under our feet is much more important than what we can see above.

#### **What are some exciting things your operation has embraced through the addition of pulse crops to your rotation?**

Some highlights of my career have been addressing feed needs to livestock, adding nutritional value to humans and animals, increasing crop yields, and developing a more complete soil biology cycle. We have also found a three-fold benefit system through utilizing pulse crops: a usable or separable feed for livestock, meeting soil health needs, and enhancing nutrient needs for all of our crops.

#### **Can a grower expect to see positive changes to their soil health with a pulse crop in their rotation? Have you?**

Yes, the added diversity to our rotation has had such a positive impact on our soil biology. We've noticed a more complete cycle of our soil health, and that has been clearly noticed by our increased crop yields and quality.

#### **What are some tips you would offer to those interested in joining the production of pulse crops?**

Knowing your field histories is essential, and choosing the right crop for each field is crucial. Identifying your goals needs to coincide with the pulse crop you chose to grow. It is exciting to have pulse crops in your rotation; it allows for you to virtually read the fertility of your land, especially with a companion crop.

#### **Some pulse crops are sensitive to moisture. Has this been an issue for you? If so, how has your operation dealt with it?**

High humidity and damp mornings are both issues of concern. But peas for example, do quite well in a region that has a cooler climate and is arid for most of the growing season. As a seed dealer, I have sent peas all over the country. And when we send peas to warmer/wetter climates, they have much less success of a bountiful crop every year. Peas tend to be versatile everywhere, but they do better in a climate that one would plant an oilseed crop (i.e. flax, canola). If we plant them really early, we never have a problem of losing a crop early.

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**Describe some guidance/precaution lines pulse crop producers need to remember?**

In starting a pulse crop, you need to have a very good rotation for cleansing the land and then a way to keep your land clean. Because a pulse crop usually won't compete early, it takes a little bit longer to emerge. It's quite some time actually, in comparison to some cereal type of crops. It doesn't always shade out another crop from coming because it takes that long for enough foliage to cover the ground.

Keeping the field clean during the season is always very important, whether you do it conventionally or organically. In both cases, if you don't do a good job from the start on picking your fields or having them clean in that rotation, you usually don't have a lot of recourse during the season because they grow quite fast. They're not too tall, and they don't shade things out fast enough.

That's where companion crops address that concern. If you plant a cereal crop with the pulse crop, it comes up quicker and faster helping shade and it also gives the pulse crop a "trellis like establishment" to attach to making it a much stronger standing crop. Lastly, when it's time to harvest, it's time to harvest. There's not a lot of lag time, and you're offered a very narrow ideal harvest window.

**What has been your biggest management struggle with producing pulse crops? And how do you deal with it?**

Dealing with late season weed control, based on field history. We have had fields look exceptionally clean, and when we go out to harvest they look like completely different fields. Fields with a known weed seed bank will show the late season emergence. Because of the minimal ground coverage, some pulse crops have allowing for sunlight to come in. Another management struggle is swathing at harvest time. Direct harvest is ideal, but if you have to swath you need to swath early. If you wait until too late to harvest, your highs are too dry and you have shatter loss. Also, if you swath too early, stems don't dry down in time for seed to be harvested. There is a fine line between too early and late, so proper harvest time is essential.

**Do you utilize livestock with you pulse crops? If so, what benefits/hindrances have you seen?**

We don't presently have livestock, because of water issues the past 2-3 years. As a part of the whole diversified cycle, we have utilized livestock. This was one of the main reasons we had peas enter into our rotation. In addition to our seed business, the nutritional benefits they offer to the livestock. Through research that has been done, we know that finished beef on peas has produced exceptional marbling on the meat. Aside from research, we have learned a lot from our seed customers and how they utilize pulse crops with their livestock. We became very aware of the nutritional benefits with peas in the livestock ration.

**Have the attributes of pulse crops value in relation to consumer health impacted your operation and/or management decisions?**

Yes. Because of the low or gluten free diet, the pulses have really blown up as far as a nutritional need. It has adequate proteins, with 25-27%. Protein is in a lot of rations and diets. A phrase I have really enjoyed using is, "If it's healthy for your animals, it's good for you too!".