

## Pulse Crops

This month, Teton area Ag producers will have an opportunity to attend a pulse crop meeting in Great Falls put on by Northern Pulse Growers Association. The crop group commonly identified as "Pulse Crops" is defined as an annual legume crop grown for human consumption with seeds grown in pods. Pulse crops include a wide range of grains including: lentils, dry peas, chickpeas, dry beans, and a slew of other crops which we don't really grow large scale here.

In 2007, we raised nearly 35,000 cwt (3.5 million pounds) of dry peas in Teton County alone. That is nearly one percent of the total 370 million pounds of dry peas raised in Montana in 2007. There were also several fields of lentils and some chickpeas.

So why consider a pulse crop? In a nutshell, there are several possible benefits to using peas or lentils in your rotation. Many of the benefits to pulse crops depend on what crop was in before them and what is going in afterwards. Many producers find that peas or lentils work well in their rotation, require minimal inputs, and we have an established market for them here in our County. In a region which has historically seen wheat, fallow, wheat- or barley, barley, barley - such rotations are gaining some traction. There is also room for this crop in our *irrigated* ground. A possible rotation would be barley - pea - wheat. Make sure whatever rotation you are using has a legume no more than every three years.

Since pulse crop are legumes, they will fix the nitrogen they need from the atmosphere, saving you that input cost for one year. Recent research indicates that a pulse crop prior to wheat will reduce the need for traditional nitrogen inputs saving more fertilizer cost when growing wheat the following year. Pulse crops root shallower than wheat typically using water only from the top two or three feet of soil profile which helps retain deep water for a following wheat crop. Peas are very competitive as well. If they are established ahead of weeds, they will out-compete them for water and nutrients, reducing the total herbicide need. Some have found an increase in wheat protein, but in the high plains region we live in, the greatest benefits are seen in reduced input costs for subsequent crops.

Another aspect of pulse crop is the reduced incidents of cereal crop disease. This reduction is attributed to breaking the green bridge and the soil, insect, and disease pressure differences between cereal grains and legumes. Nearly every producer I talk with is looking for options in disease, weed, and insect control.

In peas, two varieties that have a well established market are Aragorn and Cruiser. Both of these varieties are smooth green edible peas, and both are regarded as superior for their splittability and resistance to bleach by processors. In fact, processors are paying a premium for these two varieties (\$1.50/cwt on average). Yellow peas are also common in our county, but usually at a discount to the green peas.

The most common variety of lentil in our county is Richlea. This variety is a medium green lentil which does well in our moisture and climate. As with all seed varieties, they are constantly evaluating, changing, and trying to become more efficient. In 2010, we will see Clearfield varieties in peas and lentils on the market. Clearfield varieties, in conjunction with Beyond herbicide, offer excellent weed control in most situations.

Whether it is traditional barley, wheat, or alfalfa, most producers are looking for options most of all. What is going to make a profit? What can compete in this age of vastly inflated input and land costs. If you are interested, I have a set of cost and return projects available from Montana Department of Agriculture. Please contact me at the Extension office at 466-2491 if you would like any more information. I hope to see you on February 16 at the Pulse Crop meeting in Great Falls.