SEED VARIETIES

1. Colorado Pinto
2. Mountain Rose
3. Purple Majesty
4. Yukon Gold

Date Planted: 05/31/12
Size of Field: 3/4 acre
Total Yield: 8000 lbs
Altitude: 8500

CSU EXTENTION MEETING

March 15, 2012 I called Rob Davidson Ph.D. professor of horticulture and seed potato specialist at the CSU- SLV Research Center in Center, Colorado in the San Luis Valley to discuss this season’s potato planting project at my Goat Dairy and artisan cheese making operation in Buena Vista, Colorado.

I explained to Rob my desire to continue the development of the U-pick operation.

We discussed which type of seeds to plant. Based on 2011 consumer response and sales, I explained that customers seemed most likely to purchase the Mt. Rose, Purple Majesty, and Yukon Gold.

Rob suggested the new Colorado Pinto potato and the description sounded like a specialty which consumers desire, so I added that to my order.

We discussed tilling depth and spacing.

We also discussed the impending and predicted drought conditions for the season. I chose to plant about a 50% smaller crop than in 2011 due to the dry conditions.

The goals of this project were still the same as 2011, to see if I could successfully grow potatoes at this altitude organically, using only goat manure for soil supplement and the 6 day rotation of water. Then to successfully market the potatoes and add a u-pick program as a part of my current operation.

PREPARATION OF THE FIELD

Beginning in the fall and winter of 2011 goat manure mixed heavily with ground alfalfa hay was deposited on the planting site. We cleaned out one livestock barn 16x56 on 3 separate occasions over a 5 month period and one livestock barn 16x56 on one occasion. We also scraped the surrounding loafing area of the goats, approximately 2 times, depositing all the material on the planting site.

In the spring of 2012 we harrowed the manure material over the site and on May 31, 2012 the CSU crew tilled the rows and planted the seed. There was about 6-8inches of manure material on the surface of the soil before we tilled.

Rocks were not as much of an issue this year, but weeds infested the field late in 2011 and the dry weed material hindered tilling the rows and preparation for planting.

PLANTING THE FIELD

On May 31, 2012, the CSU crew delivered the certified seed potatoes for our project. We had no need for storage this year because we planted on the same day.

On May 31, the research associates, Andrew Houser and Steve Keller, who work for Rob Davidson, arrived with a tractor and planting implement. We all went to the field and decided the layout of the 4 varieties.

IRRIGATION WATER

I have water rights from the Riverside Ditch Company off the Arkansas River. My rotation is every 6 days. Our plan was to start with the flood irrigation method and make improvements to the irrigation system based on the success of this project. It took much manipulation and constant effort in the beginning digging canals and turning and rerouting the water to get the entire crop watered. Once we had the water flow deeply patterned it took somewhat less labor. This year we saw much less irrigation water. There was only a total of 7 rotation days of water for the entire growing season verses 15 days for 2011.

It took 4 people working a total of 30 hours a month to flood irrigate and later cultivate the crop.

One very notable factor was that once the water hit the soil on the crop site it turned the color of dark black tea. The nutrients from the manure mixture used in the soil were very visible once the crop received water.

The longest period without irrigation water was 20 days. Improving the method of irrigation would bring water more consistently and utilize the water more affectively thus improving the crop, eliminating undue stress and reducing manual labor.
WEED CONTROL

Weed control for this project consisted of hand pulling. No chemicals were used. As stated in my first report for 2011, there were very few noxious weeds until around Sept 1, 2011, at which time we seemed invaded. Hand labor was increased in an effort to control the weeds, but proved very difficult in the fall and dry conditions. Owning such a large herd of goats, it would seem the natural solution to have the goats eat the weeds, particularly once the plants are knocked down prior to harvest and the potatoes are setting. Goats are certainly capable and very good at destroying weeds. More research must be done about the toxicity of the potato plant to the goat.

As it was, weeds continued to invade through the 2011 harvest. We deposited natural fertilizer material through the winter which ultimately helped the weed seed. Spring of 2012 after harrowing left perfect conditions for weeds to take a firm hold. We continued hand labor. Going into 2013, we will need some real

CULTIVATING

All cultivation was done this year by us, manually. We took one row per day and dug it deeper pulling the dirt back on top of the seed/plants. Deepening the canal and building up rows.

In retrospect, we could obviously benefit from cultivating equipment. This season was so dry it was intense labor to cultivate rows by hand.

CUTTING THE PLANTS—SETTING THE POTATO

On September 15 Rob instructed us to prepare to cut the plants and let the skins thicken. We selected a date and this year we cut the plants by hand, using machetes. This technique seemed to work fine. But as we hacked the plants we also hacked the seed laden weeds, preparing the next season for prolific weed growth, unfortunately.

The tubers were then allowed to “set” in the ground for 10 days which causes the skins to thicken. We needed to make sure the cut and set were complete before cold weather —freezing conditions occurred. If this step were skipped then the potatoes would have very thin skins and will split when baked or boiled. The potatoes would not store as well either.

We allowed the proper set time for the potatoes. We noticed at this time that although each plant had numerous tubers, they were all significantly smaller than the 2011 season.

THE HARVEST

The 2012 harvest was as planned, significantly smaller than 2011.

The dry season and weed infestation contributed to the much smaller size of the tubers. Although this would in most markets be undesirable, in my market it turned into a positive. The consumers who visit my farm actually prefer the smaller potatoes. The small tubers are considered a specialty and the varieties we chose were perfect.

Operating the harvest equipment was slower and more difficult because of the lack of moisture and weed stalks. But the small tubers were still readily visible and easy to pick from the field.
U-PICK PROJECT AND MARKETING

Our “Fun Fall Festival” with U-Pick Colorado Potatoes was scheduled for Friday, Saturday and Sunday, October 5, 6 and 7th. To prepare for the harvest we scheduled for dairy labor to be available and we included wagon rides to the field, music, B-Q lunch, fun fall games for the children, free popcorn and a pumpkin patch.

I created bright flyers with the basic information and posted them around town and handed them out to customers visiting our on-site Country Store. I put an announcement online through our Chamber of Commerce. I utilized word of mouth in a small community by calling key people and announcing the harvest at church. I hung a giant dry erase board in front of the country store describing the harvest. I spoke with hundreds of people at a Food Show sponsored by a broad line distribution company 5 days prior to the harvest. I took a basket of potatoes to the farmers market, I put several classified ads in the local paper, we launched a major radio campaign on a local station and finally painted a new bright yellow sign and posted it on the corner of the farm property visible from the highway.

We renovated an older horse pulled hay wagon so we could pull it with the tractor. We brought a scale from the dairy and put it in the store, also plastic, paper and burlap bags and 5 gallon buckets. The dry erase board hanging in front of the store directed visitors with information such as free wagon rides to the field, 4 varieties of potatoes to pick with further details of the varieties inside the store.

Potatoes were available by the bucket. 1 full bucket = 40$ and a

We pitched several tents out in front of our on site Country Store and sold fresh pie, green chili and a specialty B-Q goat meat and fresh hand made tortillas sprinkled with Jumpin Good Goat cheeses. We also served Hot Chocolate goat milk and apple cider. One tent was dedicated to a straw pile candy and potato dive for the children.

Also by adding the pumpkin patch, bringing in pumpkins to the field from a local farm, was a great family draw opening the door to education about the potatoes and the farm harvest.

The turn out and results for the u-pick operation for the 2012 season were exceptionally good! We sold all of the potatoes in all varieties. We gleaned the field the following week and were able to get about 75 lbs. Which we put in the Country store for sale - minus a few pounds for my family and employees.

LOOKING FORWARD

We are looking forward to the 2013 season with hopes of adequate irrigation water, improved cultivating techniques and a new form of weed control, possibly utilizing our goats.

We are looking forward to continued development of the Fun, Fall Festival and Colorado Potato Harvest as a way to increase visitors and revenue to my farm as well as a perfect opportunity to spend time with families and educate about local food production and agriculture in Colorado.

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