

Objective: To validate Aqueus Growthful chemistry as a soil amendment for agriculture products.

Application: 120 acres irrigated plot in Nebraska, USA. The northern half of the plot (60 acres) was treated with Aqueus technology, the southern half (60 acres) was treated conventionally as a control group. The plot utilizes a center pivot irrigation system. Applied at 7-10 days interval.

Note: Aqueus products can be applied along with other crop protection and nutrient input that allows farmers not to change their crop care protocols.

Date: August 2019

Agency: Frenchman Valley, Nebraska

Crops: Potato

About Frenchman Valley

Frenchman Valley Produce (FVP) grows and ships fresh, processed, and seed potatoes year-round. They are fourth generation potato farmers, and are AIB, GAP, and SGS approved. FVP currently farms 2,500 acres throughout Nebraska and Kansas.

TEST DIG RESULTS: 8 weeks prior to harvest

POTATO

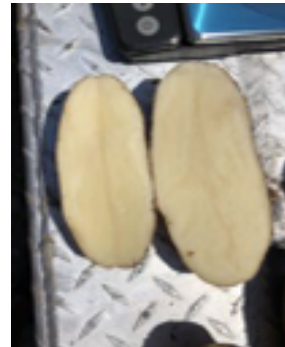
weight per plant – 35%
number of tubers – 2.3%

1. *Healthier Crops: During the pre-harvest review, all tubers treated with Growthful showed excellent overall plant health.*
2. *Grower Observation: The potato crops treated with Growthful chemistry exhibited considerably fewer lenticels on the tuber skin than those in the FVP control group. Potatoes with more lenticels are linked to a higher likelihood of disease.*
3. *Increase in average weight per plant with Growthful – 35%*
4. *Increase in number of tubers per plant with Growthful – 2.3%*
5. *Speed to maturity and reduced grow cycles were a significant observation*



Test Dig: 3 untreated
Average weight 8 oz

Test Dig: 3 Treated
Average weight 16 oz



Larger potatoes
maintained perfect
quality with no
defects

RESULTS SUMMARY

Data collected at the pre-harvest review showed that the potato crops treated with Growthful showed significant improvements in yield, tuber size, and overall plant health, and were ready to be harvested. Speed to maturity of the tubers was a significant result, the treated crops were ready for harvest 6-8 weeks prior to the untreated crops.

The ability of Growthful to speed to maturity provides farmers with unique flexibility in their planting and harvesting cycles. Pre planting wet weather cycles are of less concern as farmers can delay planting and still harvest on time when using Growthful. Conversely, Growthful's speed to maturity provide farmers the opportunity to harvest earlier and garner a higher price for the early crop potatoes, as well as avoid the potential destructive impact of early hard freeze events prior to harvest Growthful produced higher value, larger tubers, and in greater quantities, Overall total yield increase averaged 5-6% on this trial.