

SLVRC Plant Pathology Newsletter

May 2019

Interesting Spud Research

The causal agent of 'Pink eye' is unknown, but remains associated with high temperatures, wet conditions and loss of foliar canopy. Affected tubers show light pink coloration around and between eyes. However, since this coloration is not always found on affected tubers and if found is ephemeral, "pink" is not a true descriptive of this syndrome. Based on several years of research on tuber periderm structural changes occurring as a result of this problem, pink eye is renamed as 'periderm disorder syndrome'. The new naming reflects the principal physiological component (periderm) that deteriorates resulting in the inability to protect the tuber.

More information about this research can be found here: Lulai, E. C., et al. 2018. American Journal of Potato Research 95:435-440; <https://doi.org/10.1007/s12230-018-9634-4>

Disease Management Updates

- Many growers in the valley have already pre-cut potato seed. For growers who prefer to cut seed on the day of planting, ensure that both seed piece and planting depth soil temperatures are around 50-60°F to promote wound healing. To better plan for planting, please refer to Fig.1 for soil temperatures recorded during the month of April at different weather stations in the valley.
- Planting cold seed in warm soil is not recommended as it will result in formation of moisture film around the seed piece thereby increasing chances for decay due to soft rot bacteria.
- Some diseases that growers should be mindful of during planting are black scurf, stem and stolon canker caused by *Rhizoctonia solani*, Fusarium dry rot and silver scurf. Several pesticides with active ingredients such as mancozeb, fludioxonil, thiophanate-methyl, sedaxane, difenoconazole, prothioconazole, penflufen are labeled for managing these diseases. Always read the product label before using any pesticide.



- Current available seed treatments do not control viruses or improve seed quality but only offer protection against new fungal infections. They are not effective against fungal pathogens already present inside seed pieces.
- There are known reports of *Fusarium* species and *Helminthosporium solani* (pathogen causing silver scurf disease) isolates with resistance to fludioxonil and thiophanate-methyl fungicides. Hence from a resistance management perspective, growers should consider using products with companion and contrasting chemistries in sequential years.



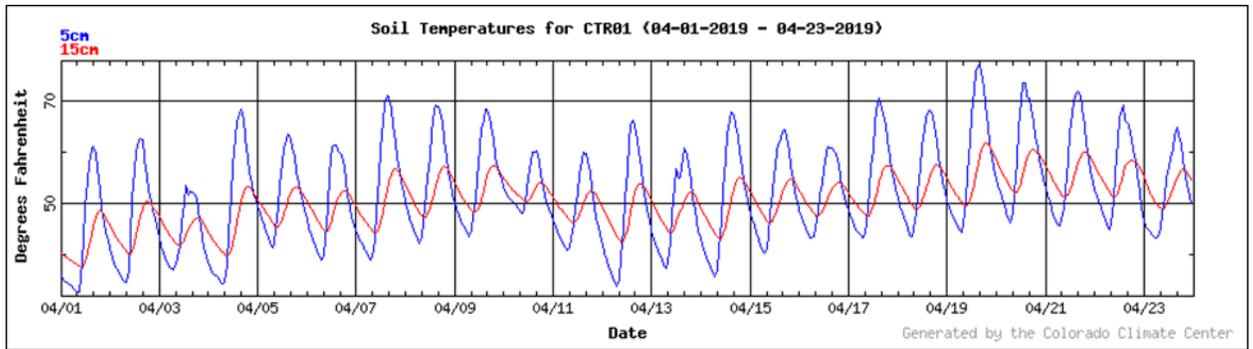
COLORADO STATE UNIVERSITY
EXTENSION

Helping families increase physical activity and
enjoy healthy foods

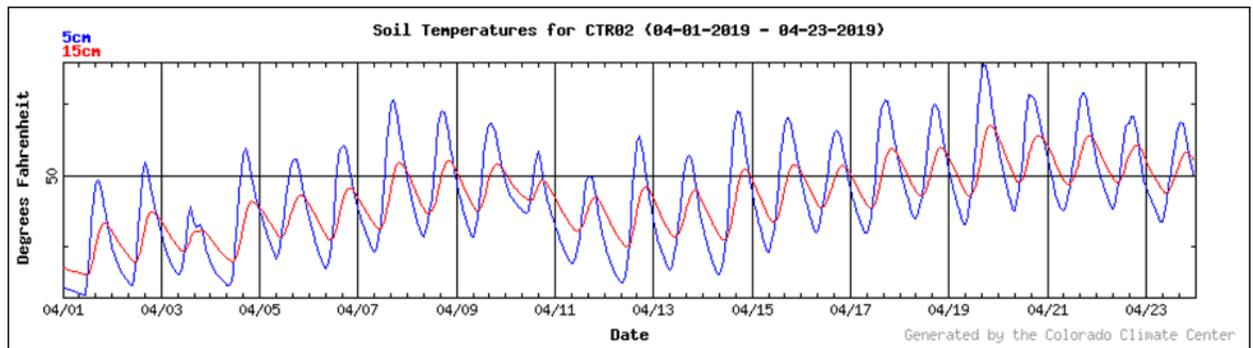
Figure 1: Soil temperatures recorded at different weather stations during April 1-23, 2019.

(Source: https://coagmet.colostate.edu/plot_form.php)

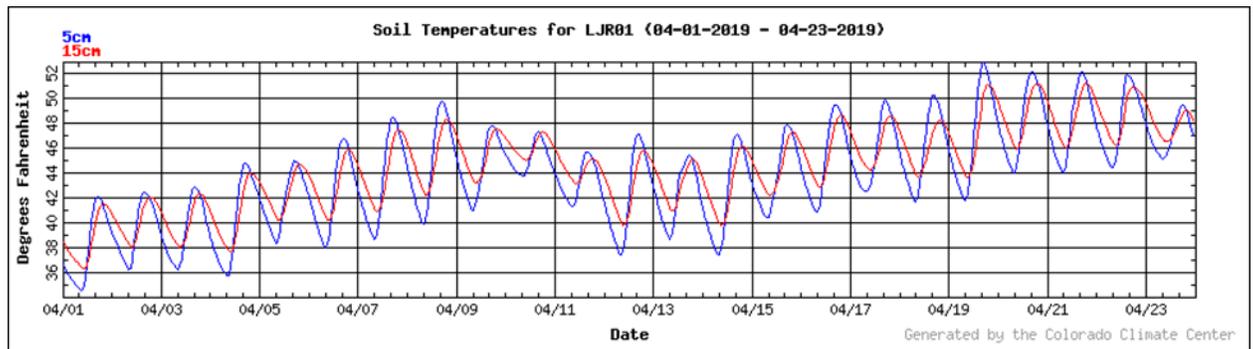
A) Center-1



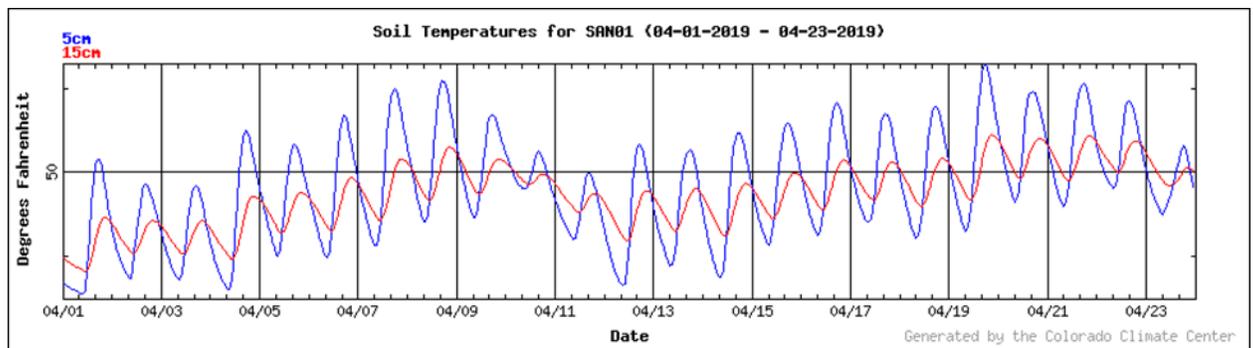
B) Center-2



C) La Jara



D) San Acacio



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Additional Resources: <http://potatoes.colostate.edu>