

# Graduate Student Opportunities!



The Kalcsits Lab in the Department of Horticulture has funding to support two graduate students located at Washington State University's Tree Fruit Research and Extension Center in Wenatchee, WA starting in August, 2019 (negotiable). The Kalcsits Lab is focused on understanding physiological and genotypic interactions between environment and horticultural management in tree fruit.

One project is part of a United States Department of Agriculture NIFA grant. The student will be expected to work on understanding the movement and cellular localization of exogenously applied calcium to apple fruit and its role in preventing bitter pit in apple. This research will benefit the tree fruit industry to reduce losses as well as address critical scientific questions related to calcium movement and nutrition in apple.

The other project is part of a Washington State Department of Agriculture/USDA Specialty Crop Block Grant that is focused on understanding sunburn risks for tree fruit producers in Washington State. Sunburn remains one of the greatest risks for fruit loss in Washington State. There are several approaches to mitigate sunburn but changing environments are increasing risk to previously unaffected regions. Sunburn susceptibility in apple is not static. Sunburn risk is a function of light, heat, fruit development and physiological adaptation. However, these dynamics are poorly understood. The student will focus on understanding the physiological changes that occur during fruit development and fruit acclimation to sunburn that will provide information for more accurate modelling of present and future sunburn risk in Washington State. This information will allow tree fruit producers to make more informed decisions on their sunburn protection strategies for their orchards.



The students will be located in Wenatchee, WA at the Washington State University Tree Fruit Research and Extension Center which is located on the eastern edge of the Cascade Mountains and enjoys approximately 300 days of sunshine per year. There are endless outdoor recreation opportunities near Wenatchee including world-class hiking, mountain biking, rock climbing, mountaineering and white-water rafting. Wenatchee, WA is also in the heart of the US tree fruit industry where more than 50% of apples, cherries and pears grown in the United States are grown. In Wenatchee, the student will have opportunity to plan and conduct independent experiments and integrate into an active tree fruit research team at WSU TFREC. If you are interested, please submit your CV and a letter of interest to [lee.kalcsits@wsu.edu](mailto:lee.kalcsits@wsu.edu). These positions will remain open until filled.

