Demonstration by Matthew Walker - Approach grafting

On March 23, 2023, at the Rohnert Park Community Center, Rohnert Park, CA, Matthew Walker performed a demonstration for the members of Redwood Empire Bonsai Society (REBS). Matthew is the owner of Bonchi Bonsai <Matthew@bonchibonsai.com>, a full service bonsai vendor. The subject of the demonstration was approach grafting Kishu Shimpaku whips onto an old San Jose juniper.

What is approach grafting? Approach grafting is the attaching of donor trees with their roots to the receiving tree having the purpose of changing the foliage and adding branches in desired positions. Instead of using a cutting or shoot from the donor tree and inserting the shoot (also call a scion) into the receiving tree, approach grafting requires the fully intact donor tree (also called a whip) and attaching it to the receiving tree.

Matthew explained that approach grafting will perform with a greater success and faster time than scion grafting. The best time to approach graft junipers is the February and March growing season. This is when both the donor and receiving trees are both vigorous. In his demonstration, Matthew wanted to change the native foliage and eliminate the tree's leggy appearance. He used three year old Kishu Shimpaku whips that he grew from cuttings. Matthew used three whips and attached them close to the trunk as the first, second and third branches.

At the beginning of the demonstration, Matthew showed the audience the proper tools required for approach grafting. He would use the following tools and materials:

Die grinder (or Dremel) using a 4 mm cutting bit

Sharp knife

Bamboo chopstick cut in small one inch pieces

Wood carving chisel

Hammer

Grafting nails

Square staples

Thick rubber strips

Aluminum wire

Wire cutter

Bonsai scissors

Cut paste

Matthew began the approach grafting with the whips by first removing some of the foliage at the base with a sharp knife making sure that about three or so inches of the trunk was fully clear leaving foliage at the end of the whip. He marked on the receiving tree where each of three whips were to be positioned (first, second and third branches near the trunk.)

The die grinder used a cutting bit (4 mm) slightly smaller than the diameter of the donor whip. Matthew carefully inserted the cutting bit into the trunk and pressed deep enough so that the donor whip would fit flush inside the groove. It only takes a second to create the desired groove. He then used a wood carving chisel to remove any remains of wood shavings to ensure the groove was clean and smooth.

Matthew marked the donor whip where it would be fitted to the fresh cut groove. The next step was using the sharp knife to cut the donor whip along the area of the woody trunk that will touch the sides of the groove which would be exposed to the cambium on both sides of the whip. He then placed the prepared whip into the groove, pressing hard and making sure much of the cambium of the whip aligned with the cambium of the receiving tree.

With the donor whip in place, Matthew held the donor whip in place by inserting a grafting nail. Then placing a rubber strip and short piece of cut bamboo chopstick over the insertion position and nailing it securely with two square staples.

Once all three whips were securely positioned on the trunk, Matthew sealed the sites entirely with cut paste. He emphasized keeping the sites sealed from water which would introduce bacteria and damage the approach grafting.

The finishing touch was to use Aluminum wire to tie down the donor trees and pots to prevent unwanted movement which could damage the approach grafting sites.

Matthew described steps to ensure the success of the approach grafting. He further described weaning the donor tree from the approach grafting site by taking a sharp knife and cutting slightly over time into the trunk of the donor tree below the grafting site. This will eventually cause deadwood at the cutting site and allow the receiving tree to accept the approach grafting.

The grafting should be protected against direct sun and watered frequently.

Removal of the donor whip pot and roots and native receiving tree foliage will occur over a three year period.

Upon completion of the demonstration, the San Jose juniper was raffled off. REBS member Cathy Taylor won the demo tree.

Matthew Walker holding the three year old whip up to the receiving San Jose juniper.

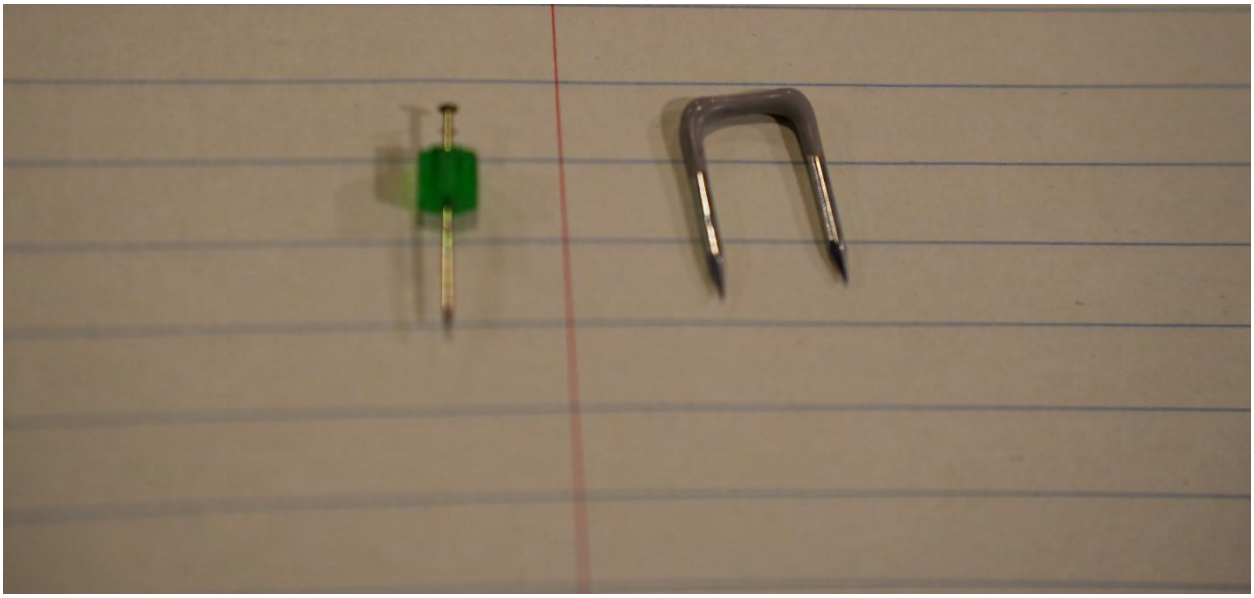

Photo depicts the grafting nail and square staple used to secure the donor whip to the trunk of the receiving tree.

Here Matthew is deciding where he wants to insert the donor whip.

Using the die grinder and cutting bit to cut a groove to receive the donor whip.

Preparing the donor whip by removing unwanted foliage from the trunk.

Exposing the cambium of the donor whip.

Pressing the donor whip into the cut groove of the receiving tree.

Tacking grafting nails and square staples to secure the bamboo chopstick.

Photo depicts the approach grafting of donor whip to receiving San Jose juniper.

Photo depicts complete seal with cut paste of the approach grafting site.

Here Matthew is securing the donor trees to the receiving tree with Aluminum wire.

Photo depicts the completed approach grafting of three donor whips.

Cathy Taylor and Matthew Walker pose next to the demo tree.