

January 1, 2023

Special points of interest:

- **Not all dandylicons are flowers but they are yellow.**
- **The 15th Missouri continues the fight at Franklin.**
- **Six Toes makes a new friend.**
- **I once had 52 students in a ninth grade science class.**

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Bob's News & Musings

What's New?

Although Coenosium Gardens is no longer in business, I still do some grafting from time to time.

This year I grafted a few spruce and pine at the end of December.

The spruce grafted included a batch of *Picea pungens* 'Hot Poppers', a new discovery not yet shared with anyone (provisional name suggested by Tim Morrissey). Scion wood is never easy since so many of the shoots have terminal cones.

I also did some *Picea abies* 'Silver Star' and 'Gold Finch'. I just enjoy watching them grow.

I was able to get ten *Pinus strobus* 'Blue Petticoats' about

three feet tall. I grafted *Pinus parviflora* 'Goldyllocks WB' onto some of them. If they survive, they should make interesting specimens with gold balls sitting on top of blue-green, pendulous branches eventually developing a wide-spreading skirt.

I also did some *Pinus parviflora* 'Goldy's Tuffet' on a few of them. Lots of fun.

My plant of *Pinus contorta* 'Taylor's Sunburst WB' has a few graftable scions. I put them onto some lodgepole understocks. Hopefully they will perform nicely over the next few years as they become established.

January 28 at noon EST I will be giving a Zoom presentation. It will be the talk I gave at a recent Conifer College in Ohio at the Central Region meeting of the ACS: *Why (Conifers Act and Grow The Way They Do)*. The link is:

<https://us02web.zoom.us/j/83405124825?pwd=V3Z4M2xJZDM1V3lTc2hmToJPVjRNQT09>

Pinus contorta 'Taylor's Sunburst WB' (below)



Picea abies 'Silver Star' (left)

Picea pungens 'Hot Poppers' (right)





The specimens shown here are growing at Gary Gee's nursery in Michigan. They were purchased from Jim Boyko's Nursery in Oregon a short time before Jim's death. Jim is shown above while below I am roaming through Gary Gee's extensive arboretum at Gee Farms.



***Picea abies* 'Dandyllion'**

Broad and pendulous, *Picea abies* 'Dandyllion' produces upright shoots but they do not continue upward, producing a growth habit that is spreading with horizontal to slightly pendulous side branches. When it attains a mature size, a single specimen will be much broader than high with a footprint in the garden that is more oval than round. It has a growth rate of about 4 inches (10 cm) per year.

Its foliage is bright yellow in the spring, dulling slightly in the summer and then coming back in the fall. The needles are smaller and thinner than the species. It is densely branched and puts on a great show in the spring when red cones are scattered about the plant at the ends of branches.

'Dandyllion' first produced cones in the spring of 2010, eight years after its germination from seed. It was the first of my seedlings from my 'Acrocona' x 'Gold Drift' cross to be named and selected for introduction.



What Causes Gold Conifers and Why Are Some Inconsistent?

The yellow color in conifers appears to be due to a lack of chlorophyll, allowing other pigments to dominate. As more chlorophyll is produced, the yellow pigments are masked by its green coloration. During the summer, leaves/needles will produce more chlorophyll, unless genetically prohibited from doing so, causing the gold-flushing conifers to turn green.

Golden foliage that is shaded will also turn green as more chlorophyll survives to capture more energy from the reduced light level. Golden conifers in the full sun will often become brighter as the chlorophyll level is reduced and may become more sensitive to foliage burn with a reduced growth rate.

There are three pigments in plant leaves/needles that are very important. The green one is the chlorophyll which uses blue and red wavelengths of light for a food production process called photosynthesis. When chlorophyll is produced by the leaf, it lasts for a short time before disappearing. That means the leaf must be constantly producing new chlorophyll.

A second pigment, anthocyanin is a red pigment and is only visible when the others are not present. It is seldom seen in conifers.

The third pigment that occurs in different forms called carotenoids, range in color from yellow to orange and play an important role in the leaf.

They are able to use the wavelengths of light between red and blue to carry on photosynthesis and supplement the work of the chlorophyll while

absorbing some of the sunlight's energy. They are found with the chlorophyll and actually extend the life span of the chlorophyll by absorbing some of the damaging chemicals produced in the process of photosynthesis. They have the ability to hold up much better in the sunlight than chlorophyll.

Sunlight will gradually destroy the chlorophyll in a leaf and if its intensity increases, chlorophyll is destroyed at a faster rate. If the weather is warm and sunny, the chlorophyll is replaced as fast as it is destroyed, especially if the chlorophyll is in balance with the carotenoids. If the carotenoids are present in smaller amounts, they may not protect the chlorophyll in a normal manner and the carotenoids will show as chlorophyll is destroyed by the sunlight, leading to a conifer with gold foliage. If the carotenoid concentration is too low, then no pigments remain and the foliage will be white or cream-colored. If a golden plant is shaded, less chlorophyll is destroyed and the foliage will be greener. An initial lack of carotenoids in the spring would cause a conifer to flush variegated foliage. As time passed, the production of carotenoids would allow the chlorophyll concentration to increase and the variegation would gradually disappear.

Light reduction by haze can also have an effect upon the color of a golden conifer. Photosynthesis occurs in chlorophyll when light photons impart energy into the chlorophyll. These photons also de-

stroy the chlorophyll if it is not protected by carotenoids. So it is that a reduction in the rate of photosynthesis will cause a corresponding reduction in the destruction of chlorophyll.

Measurements made during studies of the effects of haze upon the tropical forest ecosystem showed some interesting data. On a hazy day in a warm climate there was a 50% reduction in photosynthetic photons reaching the canopy of a forest.

Haze consists of a variety of substances ranging from pollutants such as sulfates to tiny soot and dust particles. In areas of high humidity solid particles become saturated with water and the particles tend to be larger. This haze absorbs photons and becomes warmer while decreasing the quantity of photons available for photosynthesis (and chlorophyll destruction). It is interesting to also note that the diffusion effect of haze will direct photons into the normally heavily shaded interiors of conifers, increasing the photosynthesis in this part of the plant.

The net result of the effect of haze is to decrease the gold coloring in golden conifers while allowing the overall photosynthetic rate of the total plant to remain at an unchanged level.

Sunlight destroys chlorophyll so a lack of carotenoids (yellow to orange pigments) can produce golden foliage. See why in this article.

***Fagus sylvatica* 'Ansorgei'**

Visitors to Coenosium Gardens were always attracted to our young specimen of *Fagus sylvatica* 'Ansorgei'. It was discovered about 1884 in Hamburg, Germany and is almost unheard of in this country. In fact, it was almost lost to cultivation in Europe. A shrubby plant with narrow, dark purple leaves, it is ideal for the smaller yard or for the borders of a large garden.

Dick van Hoey Smith found an old specimen in a garden in the Czech Republic and obtained scions for grafting. The cultivar was very rare and Dick was instrumental in bringing it back into cultivation. I got my start with scion wood from Dick in the early 1980's.

'Ansorgei' is a great alternative choice to *Acer palmatum*. The color is very good, the leaves are linear, and the tree is quite dwarf. In addition, it does not have the disease problems of the Japanese maple.

The plant shown here is the original plant at Trompenburg Arboretum in Rotterdam. Dick worked with his friends in Boskoop to get this plant back into the nursery trade.

It is still quite rare and deserves to be much more widely grown.



Fagus sylvatica 'Ansorgei' is an old cultivar that deserves to be more widely grown but suffers from being a dwarf tree, making it unattractive to wholesale growers who like to turn a quick profit.

Layering of *Fagus sylvatica* 'Pendula'

Fagus sylvatica 'Pendula' will eventually die due to layering. I have seen such a thing at the Hunnewell Estate near the Arnold Arboretum in Jamaica Plain, Massachusetts near Boston and in the Morris Arboretum near Philadelphia (see pictures to the left).

The branches of 'Pendula' eventually touch the ground and as time passes, develop their own roots. As they become independent plants, they surround the original tree in a dense circle and eventually choke the life out of it. What remains is a ring of *Fagus sylvatica* 'Pendula' with a rotting stump in its center.

The top picture shows a smaller ring at Hunnewell while the center picture shows part of a large ring at Morris. The bottom picture shows the center of the circle at Morris with a rotting stump.



The original plant of *Fagus sylvatica* 'Pendula' will eventually die due to layering

Stack 'em Deep & Teach 'em Cheap

Section Two: Administration

Unit One: District Concerns

Chapter Five

Class Size: Stack 'em Deep and Teach 'em Cheap

I was dumbfounded when I saw my class lists to start the 1967 school year at Weatherly High School in Pennsylvania. The new principal had a lot to learn about making a class schedule. For example, my first period had five students for earth science. In comparison, my second period had over fifty students for the same subject!

I waited for the 54 students to arrive for their first day with me. Finally, they all managed to squeeze into my classroom. The twenty without desks stood around the back of the room. They were too shocked at the number of kids in the room to even think of throwing spitballs or kicking each other.

I "took the bull by the horns" and marched the 54 ninth graders out of my regular classroom to the cafeteria, where I assigned two students to each lunch table. Then, I rolled in a portable chalkboard and got ready to teach.

I had this situation for about a week. Not being an experienced teacher, I decided that I had to be a real prick, or there was no way I could survive. When I was lecturing, the first student to start talking got a severe reprimand. I gave him a verbal tongue lashing after slamming a meter stick onto the table directly in front of him. The meter stick got his attention, and my rant influenced him and the rest of the class. Talking was not a problem after that.

I assigned homework the second day, and any student who did not have it done got chewed out in front of the class. I also kept a paddle close by where all could see it.

I had decided that the only way

to control such a large group of unacademically motivated students was by being downright nasty. It worked for the first week. Then the science chair volunteered to set up another class and took twenty of the students out of my class. That meant I could get back into a classroom and forget about joining the army (at least for the next few weeks).

I am not sure what had gone on behind the scenes. As a new teacher, I was trying to survive. The principal had put the schedule together and had messed up some classes. I suspect the administration feared what might happen if I continued in such a difficult situation.

The first time I heard the expression, "Stack 'em deep and teach 'em cheap." I was walking out of Pennsylvania's Tamaqua High School with Harry. Harry taught Physical Education and Anatomy. We discussed class sizes, and, as usual, physical education classes were packed full of students. Schedulers liked to use those classes to regulate the academic classes' sizes and help with scheduling conflicts.

The district kept the boys' and girls' physical education classes separate, and the curriculum focused on team sports. It was not uncommon to have a basketball game with ten players on a team. There were no desks in the classroom, and the gym was big. Supposedly the kids just ran around in there anyway.

Since the physical education teachers did not have to grade papers or spend much time planning lessons, their complaints about class sizes got little support from the academic teachers. Instead, the principal stacked them deep to teach them cheap.

Districts often resist making average class sizes a part of the teachers' contract. They especially oppose specifying a maximum total for the number of students

in any class. Such a proviso can be very costly to a school district. After all, every teacher would like classes with fewer than twenty-four students.

I enjoyed finishing my teaching career in a small district. Eatonville, WA, reminded me in some ways of my days at Weatherly. There was even the same problem with class sizes. One year, Mark had 40 students in one of his ninth-grade health classes. Eventually, the maximum was lowered to 33, which was still too high for an excellent educational experience. Even my science classes often had over 30 students, making laboratories exceedingly tricky to supervise.

The district always resisted being held to a limit in class size. Such a limit would be expensive, and the resistance was fierce whenever it came up in contract negotiations. Districts sometimes allow wording that uses the term "average" class size. Then the question becomes how to calculate the average. Suppose the calculation uses all certified staff. In that case, librarians and counselors (who have no assigned classes) are counted along with the special education teachers who tend to have small classes. Their inclusion skews the calculation in favor of the district.

At Eatonville, everyone realized the value of small classes. Still, finances often forced the administration and school board to play some games with the numbers. For example, I became involved with contract negotiations at Eatonville. I was the lead for the certificated staff for two different contracts. The district had three elementary schools. The average class size was close to 24 students at the different grade levels. However, many of the teachers at two of the schools had over 30 students in their classes. The third school, Columbia Crest, was near Mount Rainier in a rural area

Districts often resist making average class sizes a part of the teachers' contract.

Stack 'em Deep & Teach 'em Cheap: Story behind the book

with a small population. As a result, the classes had as few as 12 to 15 students, producing deceptively low average numbers district-wide.

The district adjusted class sizes by shifting students to that school. Unfortunately, that shift created another set of problems. Students living in Eatonville, who could almost walk to the school in town, were shifted to Columbia Crest Elementary School and had a 45-minute bus ride to and from school. Attempts to close the school and use empty classrooms in the other two schools were strongly resisted by parents in that area. So, the busing continued until Columbia Crest became a STEM School. This innovation created a demand among parents throughout the district for their children to attend that school. A STEM school focuses on science, technology, engineering, and math education in a project-based environment where the students work in groups. If those classes are kept small, other classes can be large, and the overall average stays within the contractual limit.

Districts can only achieve a preponderance of small classes in a perfect world with unlimited resources (money). Unfortunately, school budgets are subject to many factors, each calling for a slice of the pie. Everyone agrees that small classes are an ideal situation, but one that is unaffordable for most, if not all, public schools.

“Stack ‘em deep and teach ‘em cheap” will be around for a long time.

Class size plays a very important role in public education, both from an educational viewpoint and from a financial viewpoint.

I once had a ninth grade class with only five students while another time, described here, I had over fifty, which was corrected after a while.

I commonly had classes of more than thirty students.

Personal instruction for a struggling student is a ‘pipe dream’. A typical class period has about forty minutes of actual instruction time. That allows a few seconds over one minute per student. Even that time depends upon how cooperative the other students are while the teacher helps an individual.

Even a class size of twenty-four allows less than two minutes per student for individual instruction.

A science laboratory class is tricky with a large class. A teacher has a limited length of time to help each group or team doing the lab while trying to monitor the whole situation to make sure that nobody blows the room up with a chemical reaction.

In the days that wood shop was taught, the administration would load the class with high numbers of lower achieving students, thinking that hands-on activities would keep them out of trouble. I still do not know how the instructor monitored over thirty students in the shop with all sorts of power tools being used. It is surprising there weren’t any amputees created on a regular basis.

School districts fight hard against having limited class sizes in the teaching contract. It can get very expensive and the average

school building does not have enough classrooms, even if enough teachers could be hired. Putting a teacher’s aide in each classroom would be effective and possibly the cheapest approach, but it also has a cost.

Sometimes, a district will agree to an average number across the district, especially if one building pulls from an area with a smaller population, leading to very small classes. One class of fifteen can average with two classes of thirty to create a reasonable number.

Large classes make it very difficult for a teacher in any discipline to achieve learning goals. Not only do they affect face-to-face instruction, they also negatively affect the ability of teachers to handle the piles of papers that need to be graded on a regular basis.

Class size plays a very important role in public education, both from an educational viewpoint and from a financial viewpoint.

The Death of an Army (Working Book Title)

Battle of Franklin, TN

Chapter Six: 15th Missouri,
November 30, 1864
(continued)

Part 2 of Chapter 6

Holding out a plate with some hardtack and bacon on it, Maxwell went on, "We got some extra vittles from the cracker line if'n you and them others be wantin' some."

Taking the platter from Maxwell, Jedediah suddenly felt very tired as the aroma of the food and boiling coffee caused some hunger pangs. "I'd appreciate some of that coffee you got cookin'. Then I hafta go report in."

He took ten minutes to wolf down some food and finish his coffee. Then he stood and winced as his cuts and bruises from the fighting made themselves known. He moved off in search of some officers while he could still move.

Several officers were gathered around a fire, using its light to study some maps spread on a table. Jedediah walked up to the officers and saluted, "Sergeant Jedediah Strong and ten privates reporting, sir." He did not know any of the officers but figured they were now in charge of the 15th Missouri. He waited for an acknowledgement of his salute. The Colonel muttered something to one of the Captains just before returning Jedediah's salute. After the Captain saluted Jedediah as well, he motioned him off to the side of the fire. "Sergeant, we are under orders to light out of Franklin as soon as possible."

Pausing for a moment, he reached out for a paper just signed by Colonel Conrad. "This paper says you are now a

Lieutenant in the 15th Missouri. Congratulations Lieutenant Strong. You were not unobserved during today's action."

"As soon as the Secesh pull back, we will be leaving. Please make certain the men are ready. I will join you shortly."

"Where are we going, Captain?"

"Nashville. We are rejoining the rest of the army." The Captain then saluted Jedediah and said "Dismissed."

Jedediah saluted in return and slowly walked back to camp. He was tired, his cuts and bruises hurt, and he was upset with himself for quietly accepting the battlefield promotion. Then to top it all off, he would not be able to see that Samuel got a decent burial. He knew about where Samuel fell, but he would be halfway to Nashville before daylight. The rebels would bury the dead, but graves would be unmarked.

When he returned to the camp, he told the men that he was now a lieutenant and to spread the word that they would be moving out soon after the fighting ended. Everybody needed to be ready to go on short notice. Then he pulled Perkins and Parker aside and asked them, "How'd you two like to go on a short reconnaissance with me?"

"What kind of 'connaissance' Lieutenant?" Parker asked.

"A short walk into the battlefield to pick up a friend of mine. He deserves a decent burial."

"Fine with me." Perkins replied as he lightly honed the edge of his new knife.

Parker sighed and said, "You two will need me. Besides, I ain't never seen no Lieutenant stick his neck out for a dead

man."

Knowing that time was short, and he must be back before the Captain showed up, Jedediah spoke to Corporal Maxwell. "I want all the company's noncoms here within the next five minutes."

"Yes, sir!" Maxwell replied as he saluted and hurried away.

It was ten minutes before Jedediah could hold his meeting. Darkness had settled in and the firing at the battle lines had settled down to sporadic bursts or scattered single shots. "Probably shooting at ghosts." Jedediah remarked to get everybody's attention.

Jedediah had served with most of these men for almost a full year. Two of them, Sergeants Meier and Straub had enlisted the a few days sooner than he did. Before he could say anything else, Straub asked, "Who put you in charge, Strong? I hear'd you got yourself appointed Second Lieutenant. Don't seniority count for nothin' anymore?"

Jedediah had butted heads with Straub before on many items. Never one to stick his neck out, Straub went by the book whenever it suited him and did not hesitate to punish enlisted men at every opportunity. At just over five feet tall, he did everything he could to assert his dominance over anyone of lesser rank. So, it was that his question was not much of a surprise.

"Battlefield commission, Straub, as you well know. So 'suck it up' and pay attention to what I got to say."

"We will be pullin' out as soon as the fightin' ends. Captain Schuster will be joining us shortly and I want us ready to go. We done this sort of thing before, so pass the word and

The Battle of Franklin was a disaster for the Confederate Army of Tennessee. It is the setting for the first half of my novel.

make certain that any of the wounded men here in camp will be able to keep up."

Sergeant Meier then spoke up, "Congratulations on your promotion Lieutenant Strong. You should have gotten it long ago." The he continued, "The badly hurt are in Franklin where the sawbones be treatin' 'em. Only men with minor wounds are here in camp. We already got some supplies from the quartermaster wagon and will be ready to pull out when the orders come down from above."

"Thank you, Meier. I'm gonna be gone for about an hour or so. I expect you men to see that everyone has his traps together and be set to move out of here by the time I get back."

As the meeting ended, Jedediah signaled Baker and Perkins it was time to go. The three men moved away from the camp toward the battlefield. As they quietly moved through the area of Opdyke's counterattack, the sporadic firing on the front line faded away altogether. Wending their way through the scattered bodies, they often had to circumvent areas where the fighting had been the fiercest and bodies were clustered together into piles. Stretcher bearers were actively sifting through the same area looking for seriously wounded men who still clung to life. No one was actively robbing the dead.

Jedediah was in the lead as they came upon a group of Wisconsin men sitting against a dirt bank. They had been whispering among themselves and became very quiet when they heard the three men approaching. Jedediah had seen their movement and detected their murmuring and hoped they

were not trigger happy as he approached them. Visibility was limited in the dark with the settling gunsmoke but the sound of rifle hammers being cocked was very distinct. Speaking quietly but loud enough to be heard, Jedediah said "15th Missouri."

The tension lessened, but as the three men came close to the Wisconsin soldiers, their rifles stayed leveled and cocked. "What are you fellas doin' here?" one of the Wisconsin men, a corporal asked.

"I got business out there." Jedediah responded as he pointed toward the rebel lines beyond the breastworks.

"Fightin' is all done for tonight but there still be some Secesh pickets out there somewhere." the corporal replied as he signalled his companions to secure their weapons.

Jedediah climbed onto the parapet and gazed toward the rebel lines. Their army had pulled back to where they were just six hours ago. Pinpoints of light marked where men were searching the battlefield for survivors. It was just as Jedediah figured. When the shooting ended, a truce went into effect as both sides searched for wounded men. Ready to rip out each other's throats during the battle, they were able to work together immediately afterward in providing aid for the injured. He just shook his head as he fixed the approximate location of Samuel's body.

Perkins and Baker joined him on the parapet. As Jedediah pointed to their objective, more of a direction than an actual spot on the battlefield, Baker handed him a thick branch with some tar soaked rags secured to its end. "Thought you

might be needin' this. Them Wisconsin boys had a few and thought we might like one or two."

"What was they doin' with torches?"

"Some sawbones officer came by on a wagon handin' them out. He was tryin' to get men to go out lookin' for wounded. If you got a torch, you don't get shot by a picket for lootin' bodies."

Let's get to it." Perkins said as he slid down the face of the parapet. Jedediah and Baker followed with lit torches. There was an abatis at the base of the parapet and in the flickering firelight it displayed a grotesque panorama. Perkins had slid into a cluster of corpses at the base of the embankment and was actually climbing over them while his shadow was silhouetted among dozens of additional bodies that were hung and draped throughout the abatis. It was as if some giant with a macabre sense of humor had decorated the structure with dead men and his shadow was some poor soul searching for a way out. Riddled with bullets, some of the bodies hung like boneless sacks of flesh. Others had pieces blown away by cannon fire and their parts added some fleshy 'confetti' to the whole structure. As they worked through the barrier, Jedediah knew that this sight would stay with him for a long time.

*General Hood, the
Confederate
commanding
general, accused his
generals of
cowardice. Many
died in the battle.*

The Yaqui Renegade, July 1861: Part two of three

While he sat there, he heard the padre approaching. As the monk stood beside him, he was accompanied by several of the Yaquis who lived near the mission. They all stood silently, just watching.

A short time passed before Six Toes reached a decision. As he stood, he said, "My wife and child are now at peace. I will leave this place and will never return. I go north to live with our people in the land called Arizona."

One of the Yaquis stepped forward and clasped his arm. He said, "No one will disturb Little Bird and the gifts you have given her and your child. We will always have space for you in our lodges should you decide to return."

The padre remained silent and was left standing by himself as the Yaquis turned away. When everyone had left, he decided to remove the scalps from the grave. They were a blasphemy.

When he started to dig into the freshly turned soil that marked the place of the most recent scalp, an arrow hit him in the middle of his back, and he fell across the grave. Three Yaquis silently walked to where he lay and picked him up. They buried him near the edge of the little graveyard.

Six Toes was unaware of the padre's death. He was in no hurry and slowly moved along a backtrail through the Sonoran mountains. He was moving steadily toward the north and the border. He planned to take his time and reach the United States in a week or two. He loved these mountains and hated to leave, but it was time. There were too many painful memories, and the ghosts of the men he had killed wander

through them.

Besides the six scalps he had given to Little Bird, he carried twenty-two more in a sack tied to his saddle. He had no lodge where he could display these scalps. Six Toes did not care if others knew how many Mexicans he had killed. They were all scalps from soldiers and Federales. Most had bravely died while others cried like cowards. Not one of these scalps was from a woman or child. Before he crossed the border, he would destroy the scalps in a fire.

Eventually, Six Toes crossed into Arizona and headed in the direction of a place called Tucson. He planned to avoid the area and search for his people in the country to its south.

He was passing through the lands of the Papago, desert farmers, when he was struck in the back by an arrow. When it hit, he fell from his horse and scrambled into some brush alongside the trail.

The arrow had hit the stock of his Winchester. He pulled it out and prepared to hunt the man who fired it. The arrow was an Apache one, which meant the shooter would be well hidden and stealthy. He was surprised when he saw the Apache dash out from behind some rocks and approach his position. He must have thought the arrow had done some damage and was coming to finish him off.

He aimed his Winchester at the onrushing man's chest and squeezed the trigger. Sudden pain in his chest caused him to flinch and threw off his aim. The bullet hit the Apache in his shoulder, making him spin around and fall to the ground. Six Toes levered another cartridge into the rifle's chamber

and stood as the spasms in his chest subsided. "That bullet close to my heart will kill me one day," he thought to himself.

The Apache appeared to be acting alone. He sat in the middle of the trail clutching his shoulder. No one had rushed to his aid.

Six Toes was curious about this lone Apache warrior. Since they always traveled in packs, being attacked by one alone was very unusual.

Cautiously approaching the wounded man, Six Toes kept scanning the rocks and shrubs in all directions. There was no activity anywhere.

When he reached the wounded man, he stopped just outside of an arm's length. Before he could say a word, the Apache suddenly jumped to his feet. He swung a previously hidden knife at Six Toes' midsection.

Ready for anything, Six Toes avoided the sudden attack and hit the man's injured shoulder with his rifle butt. The impact made the injured man pivot awkwardly and allowed Six Toes to whack him on the side of the head with it, all in one concise movement. The warrior fell to the ground, unconscious.

Six Toes grabbed the man's hair and pulled upward, placing the edge of his scalping knife against his hairline. Then, sighing, he released the handful of hair and put his knife away.

It was late in the afternoon when the injured Apache suddenly opened his eyes and sat up. His shoulder was wrapped with a dirty bandage. The bullet had gone all the way through without hitting any bone. Six Toes had packed both holes with dirt and a little moss he had had in his bag before wrap-

In this episode, Six Toes makes his way into Arizona where he meets up with a lone Tonto Apache.

ping the wound.

When the Apache started to stand, Six Toes said, "Stay sitting. I let you keep your scalp so we can talk."

Startled, the Apache stopped trying to rise. He turned around and looked up at Six Toes, who was standing a short distance behind him.

"You speak my language," He said.

"I spend time with Apache family in Sonora many years ago. I learn some of it then, along with other things about the Apache."

Then Six Toes continued, "Why you alone so far from Apache land?"

The Apache looked him in the eyes and said, "I was made to leave my village. We have fight with buffalo soldiers, and I was sent to warn village. Chief who sent me was killed, and I was called coward who ran away."

"Why did you try to kill me?"

"My horse die, and you not my people. I want to take your horse."

Six Toes started to say something, but the Apache continued, "I am called Restless One and of the Tonto Apache. My people live on and around San Carlos Reservation.

"I have no fight with Apache. I still have my horse, so I not take your scalp this day. When sun come up, you go."

"I stay here. My people no want me, and I am alone."

Six Toes knew what it was like to be alone. He had been on his own for much of his life. The past year was the loneliest year of all. He felt some sympathy for Restless One.

He tossed a piece of pemmican to the Apache and said, "We speak again in the morn-

ing. Tonight, we rest."

The two men were settling in for the night as the sunset in the west. Before darkness took over, they heard a wagon coming along the little-used trail where Six Toes had been attacked. They were well-hidden by large boulders, and they had not started a fire.

The travelers with the wagon had no idea that anyone was within a hundred miles of their location. There were five men, Comancheros, and one Apache woman.

The men were loud and careless. They had captured the woman several days earlier after killing and scalping the old couple traveling with her. They had been traveling fast since they took her, and the old wagon was about ready to fall apart. Apache territory was behind them, and they felt safe. In the morning, they would take some time to do some repairs on the wagon and be back on the trail by noon. The following day should see them in Mexico.

The woman, an Apache named White Star, was kept tied up in the wagon and freed for short spells to prepare food or make her toilet. Tonight, they would have some time to get to know her better. They planned on being careful and not damaging her. She would bring a nice pouch of gold from a particular person in Sonora.

While two of the men started a cooking fire, another tied White Star to one of the wagon's wheels. When the fire was going, the men gathered around it and started arguing over her. Meanwhile, the leader watched over the proceedings.

Six Toes watched the Comancheros and thought to himself, "Five fools who would be easy to

kill. Since they have nothing I want, I will let them live."

He started to back away but stopped when he saw the leader approach the woman. She was not one of his people, but he wondered what was about to happen. He was curious.

She spat on the man's boot. He reached down and slapped her so hard that Six Toes heard the impact. Seeing the Comanchero hit the woman brought back a buried memory. Maybe these men needed to die after all.

As these thoughts went through Six Toes' mind, Restless One suddenly appeared by his side. The man moved like a ghost. He whispered, "That woman is from my village. Comancheros take her to Mexico to sell."

"They go nowhere," Six Toes replied.

*Six Toes has quite
a collection of
scalps which he
destroyed before
entering Arizona.*

Book Sales



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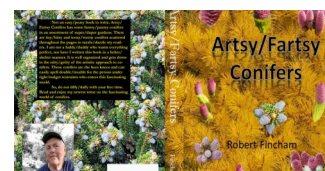
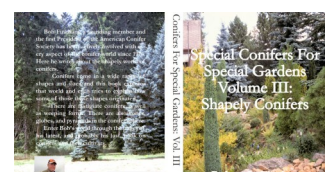
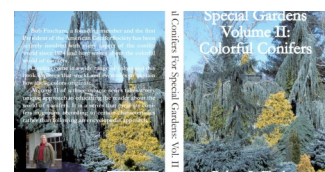
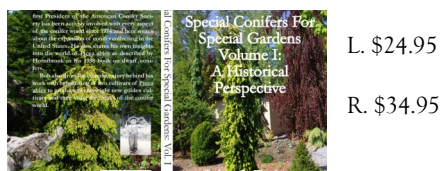
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Special Sale for my readers: For the month of January only, all of my conifer books (shown here) are reduced by \$9.95 off the list price of each book if two or more books are ordered and this newsletter is mentioned in the order. Domestic shipping will be free. Payment via PayPal or by check is acceptable. I must receive the order by February 1, 2023. List prices are shown below. More info. at www.robertfincham.com.

Hint: they make great gifts.



Grafting Methods Video



In 1988 I purchased a clunky VHS recorder to do some taping of plants for a video of conifers to help my sales of grafted conifers. It generated a lot of interest in our product line.

Then I got the bright idea to produce a video on grafting methods to publicize the nursery while also making some profit on the video itself. I figured I could do a two-hour video that would cover all of the aspects of grafting from understock through the final product. My only competition was a fifteen-minute video that sold for almost a hundred dollars.

I used a tripod for most of the shooting and Ted, our office manager, shot the scenes where I

moved around.

The first part was filmed at a potting bench where I showed how to handle the seedlings to be used as understock. I especially liked showing the Anderson tree bands for the containers since they prevented any circling of the roots.

For the grafting part, I love the feel of a grafting knife in my hand so I showed how to sharpen the knife and then how to do the mechanics of grafting.

Dick Bush was a friend who was an excellent grafter. He agreed to demonstrate the whip-and-tongue method of grafting beeches. It is a superior method for making a strong graft union.

The program spent time in the

field demonstrating the cutting of scions. Then in the greenhouse cleaning the scions.

The aftercare of the grafts is extremely important and that is covered as well.

I enjoyed shooting this video and the information in it never goes out of date.

In the late 190's I converted it to DVD and it still sells to people wanting to learn how to graft (over 1000 total sold in 30+ years).

I sell the DVD for \$20.00 (\$10.00 with a book purchase) either through my web site at www.robertfincham.com or a direct email to me at bobfincham@mashell.com.