## Old Apricot Tree, Jemez Springs Community Presbyterian Church Jemez Springs, New Mexico

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An old apricot tree grew for many years on the north side of the Jemez Springs Presbyterian Church. The Church was built around 1880 and was dedicated in 1881. One of the founders of the Church, and it's first pastor (Moderator), was the Reverend Dr. John Milton Shields. He and his family traveled as missionaries from Pennsylvania to Jemez Pueblo in 1878. They later moved to Jemez Springs where they lived for decades.

The apricot tree apparently died two to three years ago (i.e., in 2019 or 2020) with no green leaves visible on the tree since that time. The current tree stands as two crooked, dead stems with one stem leaning over a propane tank and another toward the northwest wall and window of the kitchen. The question arose as to whether the dead tree stems should be removed or kept in place as a kind of memorial to the early church days and people. This raised the questions: How old was the tree? When was it planted, and by whom?



Photo at left shows the tree relatively healthy looking on July 4, 1983 (far left). At right, the dead tree on October 6, 2022.

On November 3, 2022, I removed a partial cross section from the stump of the central stem of the old tree. Apparently, this stem had died many years ago and was cut off. The other two stems were separate or attached to and grew from this central stem, and they survived until recently. I also removed a small wedge section from the standing dead stem on the west side of the tree. The removal of this small wedge does not significantly weaken that stem; I found the wood of the tree to be very hard and solid.

I mounted the two cross sections on plywood, and then re-sectioned them with a band saw. Then I sanded both sections with a belt sander with belt grits up to 400. This enabled me to see the rings and cell structure under a microscope. I used a zoom, binocular microscope with magnifications 10X to 70X. I attempted to match the ring-width patterns (wide and narrow rings) with the local Jemez Mountains master tree-ring chronology, but was I unable to see the weather/climate related patterns. This was most likely due to the manual watering history of the tree over-riding most of the year-to-year climate variations (as described below). As a consequence, I am able to provide only a ring count, and approximate dates.



At left, cross section from old stump of the central stem. At right, wedge section from west stem with healing curl over central stem.

I can discern and count approximately 120 separate growth rings on the two sections. This is an approximation only because the tree grew very slowly during some decades, especially recently, and during these periods the ring boundaries tend to merge, and it is very difficult to identify the annual layers. It is likely that the 120-ring count is an underestimate of the total number of years since the tree was a seedling, because highly stressed trees sometimes fail to form annual rings on all or parts of their stems during some years.

The ~120 annual ring count proceeds from the center of the dead stump section, which contains the pith. This section contains about 60 rings. The partial wedge section from the west stem includes a piece of the outermost part of the dead central stem, and then it shows tree ring growth as a healing curl over the dead central stem. I can see some matching of growth ring patterns on the outermost rings of the dead central stem on both samples, so the healing scar represents the approximate date when the central stem was cut and the west stem continued to grow over it. There are about 60 more rings from the healing scar out to the bark.

The tree grew rapidly in its first 40 years or so of life, indicating it was well watered and cared for. Then there is a period of about two decades when its growth slowed significantly. Then the central stem was cut when the tree was about 60 years old. After the central stem was cut, the west stem grew faster with larger rings for about 30 to 35 years. Then the outer most (recent) decades were the slowest growing period, with very narrow rings often merging into each other.

Given the above observations, here are some interpretations of dates and events in the life history of the old apricot tree, combined with some documentary history of the Church:

• The tree was planted no later than 1900, and because some missing rings are likely, it probably was planted sometime in the late 1890s. Reverend Shields was the official

"Moderator" of the Church until 1897, and he was followed by Reverend Elijah Maclean Fenton. However, Rev. Shields still led services on occasion until he died in 1915. I recently found an account of him giving a sermon at the Church in 1903 (R.B. Townshend, "Letters From Jemez Hot Springs"). That means that this tree was probably planted by Rev. Shields, or Rev. Fenton, or some other member of the congregation in the late 1890s.

- The tree was well cared for and watered for about 40 years, and then its growth slowed down markedly. Reverend Paul S. Barry became pastor in 1920 and served until 1950. He stated in 1948 (Church records) that during the five years previous to his arrival (1915-1920) there was no full-time pastor, suggesting that Rev. Fenton's services were intermittent. A possible explanation for the slowdown in tree growth after the first 40 years was the 1930s "Dust Bowl" drought, when perhaps the water supply was limited in the Village. Alternatively, this could mark a period when Reverend Barry paid less attention to care of the tree for some reason.
- The central stem was probably cut sometime in the 1950s, and no later than about 1960. It is likely that the reduced watering (or drought) that led to the slow ring growth starting in about the 1930s subsequently led to dieback of this stem, which was then pruned off. The two remaining stems then grew more rapidly after about 1960 as adequate watering was apparently resumed.
- The stem growth slowed down again after about 1990, and in recent decades the tree was barely adding any growth to the lower stem, with very small and indistinct rings formed. This growth slowdown could have been due to reduced watering, the deep drought of the past two decades, and/or cumulative effects of injuries and physiological decline of the old tree. There is evidence of old scars (wounds) on the two remaining stems that could have been caused by impacts of some kind incurred during building construction or other events.

## **Conclusions and Suggestions**

The old apricot tree certainly lived during the majority of the 142-year history of the Jemez Springs Presbyterian Church. The tree was probably planted by Reverend Shields, or by his wife Isabelle Shields, or someone else of the early congregation of the Church. This tree could in fact be considered a "Founder's Tree".

It is interesting to note that another old, dead apricot tree has legendary status in New Mexico: the Bishop's Lodge Apricot Tree. This tree exists on the front grounds of the Bishop's Lodge, near Santa Fe, where the Catholic Archbishop, Jean Baptiste Lamy, had a retreat beginning in the 1850s. There are multiple legends about this tree (see this link: <a href="https://www.trekearth.com/gallery/North\_America/United\_States/West/New\_Mexico/Santa\_Fe/photo330326.htm">https://www.trekearth.com/gallery/North\_America/United\_States/West/New\_Mexico/Santa\_Fe/photo330326.htm</a>). It is thought that cuttings from it were spread widely and planted in many places around New Mexico, as were other fruit trees introduced by Lamy. Wouldn't it be interesting if perhaps the Jemez Springs apricot tree stems from Lamy's tree? Perhaps it was an ecumenical gift from Lamy to Shields? This is a speculation, of course, but an interesting one I think. Also, it is notable that the owners of the Bishop Lodge have chosen to preserve their old dead apricot tree, as a kind of memorial (see the photo in the link).

I suggest below several alternatives for the future of the old apricot tree:

- 1. Preserve the tree as a memorial, to commemorate the early history and founders of the Church. In this case, I would recommend pruning off the smallest branches that still exist at the tops of the two stems and stripping all the bark off the tree. With bark removed the two stems will likely turn an attractive silvery color, like the Bishop's Lodge Tree. A small plaque could be added at the base of the tree, explaining this was an apricot tree planted by the Founders of the Church. It might be advisable to add some vertical supports to one or both stems in the future, such as a steel pipe extending from the ground up to some point on the leaning parts of the stem (you can see such a support for the Lamy apricot tree in the above link). I don't think there is an immediate need for these supports. The dead tree stems seem solid to me at this time, but eventually they may weaken when the roots decay.
- 2. Cut down the dead tree and use the wood to create something of significance for the Church, such as a cross, bench, etc. The wood seems quite solid and apricot wood is attractive. A craftsman-artist with woodworking skills could probably create a very nice object or objects from the wood.
- 3. In any case, I suggest planting another apricot tree nearby as a renewal and forward dedication to the Church and its future "history to be witnessed" by a new generation apricot tree. A seedling or a cutting could be taken from another old apricot tree in Jemez Springs, of which there are many. Some of these might be related to the Presbyterian Church Apricot tree.

[Finally, if alternative 2 is taken, here's a warning: I tried to take an increment core from the lower base of the west stem, and the tip of the steel bit broke off inside the tree. The wood is very hard indeed! The broken off tip is located just above where I took the wedge sample from the west stem. The sawyer should be very careful not to hit the broken off bit inside the stem.]



1981 Centennial Celebration pamphlet, with a drawing showing the tree on the north side.