

Silen Seed Orchard, Christmas Trees and Neighbor Relations

A second generation perspective

Silen Seed Orchard Background

In 1963, members of the Pacific NW Christmas Tree Association ask Roy Silen to help in the improvement of Christmas tree genetics. Between 1964 and 1974, a 100 parent test in Douglas-fir was completed. A handful of outstanding Christmas tree parents were identified.

December 1973

Roy Silen and Hal Schudel,
with an outstanding tree from the
100 tree test.

Ruralite[®]

December, 1973, Consumers Power



Roy R. Silen, left, and Hal Schudel: concerned about Christmas trees all year long. See page 16.

Beyond the initial study

Encouraged by the initial test results:

Cones from 1000 random parent trees were collected by Roy Silen and crew.

This spanned from Eugene, OR to the Canadian border.

Test plots were set up to determine the best parents.

These plots were grown on multiple Christmas tree grower's fields
in Oregon and Washington.

Roy fulfills his business plan:

In 1980, the Silen seed orchard site was purchased, after a two year search.

Compatible root stock was planted.

Scion wood from the top 100 parents collected and grafted into the orchard.

Crosses were tested and the best grafted.

I have added additional plantings of crosses.

Current Silen Orchard
5 Acres in production



Neighbors raise horses, llamas and sheep.

Others produce wine grapes.

This influence seed orchard management.

Cardwell Hill Cellars in the NW corner.
Horse & llama pastures to the West.
Sheep pasture to the South.



An example of neighbor relations at the Silen Orchard:

Neighbor thought I had drifted spray onto her horse pasture.

Hair on the horse was falling out in clumps.

No spraying had been done that spring.

An experienced horse breeder thought that the hair loss
was due to rat droppings in the hay.

Once the rats and barn were cleaned out, the hair loss stopped.

The orchard has never had an insecticide application.
Spot treatment of blackberry and poison oak by backpack sprayer.
Mowing is the main weed and grass suppression tactic.

No fertilizers are currently applied.

Lime is applied in the Spring.

My goal with the lime is to stimulate cone flowering
and grow healthier grass.

Frequent mowing increases available organic matter.

STANDARD PRILLED
Cal CM
Concentrated Minerals

Calcium Sulfate

Calcium Sulfate	23.28%
Calcium (Ca)	13.62%
Sulfur (S)	

Naturally Concentrated
To Deliver **MORE**
CALCIUM SULFATE
Than **GYPSUM**

Apply the
"New Professional
Industry Standard"
and Reap the Benefits

50 Lbs
(22.67kg)



Without active insect control, the Silen orchard produces half the seed per bushel when compared to an actively treated orchard.

Our short term goal is to encourage healthy trees in the orchard. The long term goal is to thin to provide sufficient sunlight for all remaining trees. This has yielded moderate cone crops with minimal inputs and mortality. However, more actively managed and sprayed orchards produce much larger cone crops, with more frequency.

2016 photo in the Silen Orchard

Roy's best production:

33 # of seed

Procone and Girdling

My best production:

23 # of seed

Procone

I have ceased Procone use due to stress and mortality concerns in the orchard



**Insecticide and Fungicide application
equipment at Holiday Tree Farms, Inc.**

- GK tracked machine
- 10, 20 or 40 gallons per acre settings
- 60 acres per day
- Used for herbicide, insecticide and fungicide work
- 50 foot swath
- 3 mph spraying, 10 mph top speed





- John Deere tractor with custom nozzle pattern
- 22 gallons per acre
- 20 acres per day
- Herbicide, insecticide and fungicide work
- Utilized for sensitive and minimal headland areas





- Helicopter
- 200 acres per day
- Insecticide and fungicide work
- 10 or 20 gallons per acre
- 8 acre batches





Neighbor Interaction at Holiday Tree Farms

Three examples:

- Organic farmer
- Neighbor with health issues
- Large commercial beekeeper

Locations of two of the three neighbors mentioned today are shown in red. These are on each end of this one field that Holiday Tree Farms leases.

There are many neighbors we work with. Our farm has 6500 acres in Christmas trees and 1000 acres in timber production.



Neighbor with Organic Farm:

- This neighbor was upset over a powdered lime application.
- We agreed from that point on to call before we apply.
- With good communications, fears have been minimized.

Neighbor with health issues:

- She moves out of her house before and after applications.
- She believes our applications could worsen her current health problems.
- Never happy when we call, but we do so before all applications, regardless of how we apply the material.

Neighbor with multiple commercial bee hive locations:

- Beekeeper asked for notification before we apply.
- She moves her hives to lower any potential for harm.
- Her biggest concern: If aphids drip honeydew in the trees, this can be attractive to bees and draw them to the trees for this food source.

Conclusions

- Orchard managers who control insects will produce higher seed yields than a non-sprayed orchard.
- One possible solution in the Silen Orchard would be the use of injectable insecticides. This would improve yields by lowering insect populations, with little to no effect on neighbor relations.
- Be proactive when dealing with neighbors concerns.
- Listen and try to understand their point of view regarding your application.
- This has proven to be a good strategy from my experience.