

# Yakima Sunday Herald

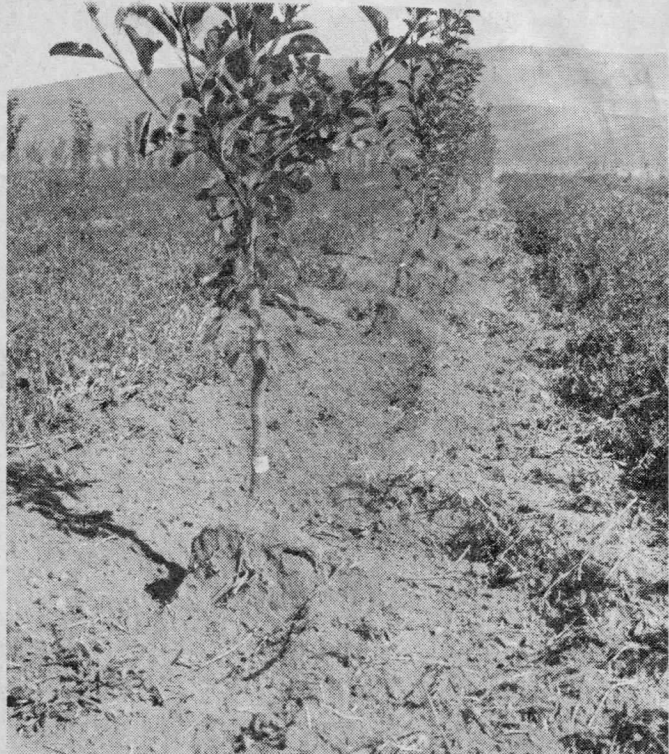
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# Valley Orchard Trials Prove Worth Of Soil Tiller Built By Yakima Firm





**AT WORK**—Mechanical weed tiller developed by Lindeman brothers of Yakima glided around young fruit tree in Wilbert Hansen orchard, on south slope of Ahtanum Ridge, without trace of injury to tree. Two such tractor-mounted units do weeding and tilling on 320 acres of new plantings for Hansen.



**CLEAN ROW**—Easy penetration of moisture and freedom from weeds are characteristics of tree row worked by mechanical tiller. Tractor with tiller unit travels along row at speeds from two to three miles an hour.

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**EASY CONTROL**—Compact tractor-powered soil tiller is ideal for young trees in orchard. Rotating blades clear weeds and loosen soil around tree to depth of 1½-2 inches. Rod-like guard in front of unit activates a mechanism that folds tiller back, so it will slide lengthwise along side of tree instead of running over it. Bar is so sensitive it can be set to be activated by weed stems.

# Won't Injure Young Trees

By **SAM CHURCHILL**

**Herald Farm Editor**

At first if you don't succeed try, try again.

There's a lot of truth to that old adage. If you have any doubts, ask Joe or Jesse Lindman of Northwest Equipment Co., Yakima.

Six years ago the brothers started work on an idea for a tractor-operated soil tiller that would weed and loosen soil around young fruit trees without danger of tree injury.

## **Success At Last**

They wanted a unit reasonably priced, simple to operate, mechanically reliable, relatively easy to attach to or remove from a tractor, and sturdy but of medium weight.

The result is a 350-pound unit with all those specifications.

This year, following six years of steady effort, the Lindemans have a field-tested unit ready for commercial production.

"We're sold on it," said Wilbert L. Hansen of Hansen Fruit and Cold Storage Co., Yakima.

## **Given Stern Test**

Hansen started field testing two of the units last year on his 320 acres of young trees on the south slope of Ahtanum Ridge on the Yakima Reservation, where 160 more acres of new trees will go in to complete the block next spring.

Hansen has been using another Lindeman unit on 150 acres of new plantings near Grandview.

The two units easily handle tilling and weeding chores on the 320-acre Reservation block, reported Robert Beam, Hansen Fruit production manager.

## **Work Constantly**

Beam keeps the two tractors with attached tillers patrolling the mile-long rows of young trees constantly.

Each unit will cover about 10 acres of orchard a day, said Beam. In other words, about every three weeks each tree in the orchard gets a thorough tilling and weeding.

### Benefits Trees

There have been some excellent side benefits, Beam said. One is that the tilled trees add more growth and develop sturdier frames faster than trees in untilled soil.

Young trees, in particular, can't prosper when forced to compete with weeds and close-circling cover crops.

Weed control costs with the mechanical tillers are comparable to those with chemicals, including cost of equipment, Beam feels.

He thinks the benefits from regular tilling will offset any cost advantage chemicals might have to begin with.

### Two Types

Two types of tiller are in production. One mounts at the rear of a tractor, on the three-point hitch.

It is slightly the heavier, weighing 450 pounds.

The other mounts on the right side, just behind the front wheel. Power is furnished by the tractor's power take off at the rear.

The units are manufactured in three sizes: A 20-inch bladed shaft, is excellent for tilling grapes; a standard 26-inch unit for young trees and younger orchards, and a 32-inch unit for orchards with big, older trees.

### Protective Guard

A bumper rod at the front of the unit directs it away from physical contact with a tree, but permits it to work the soil to within a fraction of an inch of the trunk. The bumper rod also guides the tiller around solid obstructions, such as posts or sprinkler uprights. Or, the tractor operator can lift the unit clear.

Spring adjustments, to control tension, or the amount of pressure necessary to alter the course of the tiller, can be set so fine that bumping against a small-stemmed weed will activate the mechanism which swings the tiller unit free.

### Handy Controls

The tractor operator can control operating height of the ma-

chine and other maneuvers from his seat position.

The unit and its operations are entirely mechanical. There are no hydraulic or electronic assemblies.

"Electronics devices won't take the hard bumps, and hydraulic parts need clean oil and careful maintenance," said Jess Lindeman.

The present units, changed and improved many times during field tests and shop work-outs, are designed to put in long hours in dusty orchards and vineyards.

"Bill Hansen has worked his two machines in two years the equivalent of an average lifetime for most owners," said Jesse Lindeman.

"This is what we've been looking for," said Beam.

A lot of fruit and grape growers are likely to be agreeing with him in the next few years.