

MSU Extension Publication Archive

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

How to Use Cherry Harvesting Machines
Michigan State University
Cooperative Extension Service
Farm Science Series

Harold P. Gaston, Department of Horticulture; J.H. Levin, Agricultural Engineer, USDA;
R.T. Whittenberger, Biochemist, USDA
May 1966
2 pages

The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.



EXTENSION BULLETIN 532 FARM SCIENCE SERIES

MAY 1966

HOW TO USE CHERRY HARVESTING MACHINES

Prepared by Harold P. Gaston, Horticulture Dept., MSU; J. H. Levin, Agricultural Engineer, USDA, and R. T. Whittenberger, Biochemist, USDA.



PICKERS ARE SCARCE

Cherry pickers are scarce. There aren't enough to harvest the crop. But cherries can be harvested with machines. When properly used, machines reduce labor needs and cut picking costs without lowering grade.

This bulletin tells how to use harvesting machines.

Read it carefully

Follow directions

Use it as a check list

Avoid loss and disappointment

FILE COPY
DO NOT REMOVE

WHAT GROWERS MUST DO

Early in the Season

• PRUNE . . .

- To reduce the number of scaffold branches
- To open up the lower part of the tree
- To eliminate hanging branches
- To induce uniform ripening
- To reduce excessive tree spread

• SPRAY and FERTILIZE

- To produce a good yield of firm, well-colored, high grade cherries

• CULTIVATE

To level the orchard floor
Control growth of vegetation that would interfere with machinery.

• GET NECESSARY MACHINES early and stock essential spare parts.

• CHECK WATER SUPPLY and cherry containers.

• **DISCUSS YOUR PLANS** with the field man who represents your processor. Deliveries of machine-harvested cherries may have to be scheduled. Have a thorough understanding of the total tonnage involved, and the rate at which the cherries are to be delivered.



Before Harvest

Employ a good, responsible crew. They will be operating expensive equipment and handling a valuable crop.

Train the workers thoroughly.

Pad all hard surfaces on which cherries may fall.

Arrange for plenty of ice.

Check maturity of fruit and decide when and in what block of trees to start harvesting.

Make a "shake-down" run.

COOPERATIVE EXTENSION SERVICE

MICHIGAN STATE UNIVERSITY

EAST LANSING

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U. S. Department of Agriculture. N. P. Balaton, Director, Cooperative Extension Service, Michigan State University, E. Lansing, Mich. 48823-1P-5-66-10M-HA

When Harvest Starts

- Provide close supervision.
- Avoid undue haste.
- Attach shaker claw to limb at right angle.
- Shake in short bursts (½ to 3 seconds) at frequencies of 1,000 to 1,200 per minute. Allow cherries to clear collecting frame between bursts.
- Obtain steady, light flow of cherries.
- Leave cherries that do not shake off readily.
- Stop the shaker if leaves begin to fall.
- Keep the fabric tight on all fabric-covered fruit collecting surfaces.
- Use decelerator baffles on lower edges of deflectors. Keep them working properly.
- Some of the fruit-collecting units made in 1965 have water-tight boots through which the cherries pass. If you are using this model, keep the boot filled with cold water — 60° F. or less.
- Watch for oil leaks — keep deflectors and conveyors clean and free of oil.

After Picking



- Avoid unnecessary handling.
- Soak cherries in cold water at orchard — 60° F. or less.
- or
- Move cherries to cannery promptly.
- Skim trash off the tanks in which the cherries are handled.
- Keep cherries cool (60° F. or less) — use ice if necessary.
- Maintain the delivery schedule agreed upon.

What Not to Do

- Do not overload the equipment.
- Do not shake down a great mass of cherries with a long first shake.
- Do not allow conveyor or elevator to tilt so that cherries flow to one side.
- Do not allow cherries to pile up in "pockets".

- Do not allow cherries to fall from an elevator onto other cherries or ice.
- Do not dump dry cherries from one container to another.
- Do not knock cherries off a tree with a pole.
- Do not pick up cherries from the ground.
- Do not put cherries in warm water — above 60° F.
- Do not soak the cherries for more than 10 hours.
- Do not pick late at night (midnight to 5:00 a.m.)
- The men will get tired and careless — the grade of fruit is almost sure to suffer. Avoid picking on hot afternoons.

WHAT PROCESSORS MUST DO

At the Plant

- Hold and cool the cherries in orchard tanks until time-to-process.
- or
- Unload and cool cherries promptly.
- Handle cherries carefully — avoid drops.
- Transfer cherries by means of well-designed water-filled flumes or properly adjusted conveyor belts.
- Limit soak time (including orchard soak) to 10 hours.
- Remove small and crushed cherries with an eliminator.
- Keep cherries one layer deep on eliminator.
- Use mechanical destemmer early in the season and provide a by-pass for late season fruit when stems are not a problem.
- Keep electric sorters in proper adjustment — this is very important.
- Cooperate with growers — help them avoid trouble and solve problems.
- Provide an adequate number of field men.
- Discourage picking late at night and on hot afternoons.
- Avoid draining water (during the weighing process) from cherries that arrive at the plant in tanks.
- Draining damages the fruit. Find a better way to obtain weights.

