"Appropriate Technology for Agriculture"

Olive Oil Production

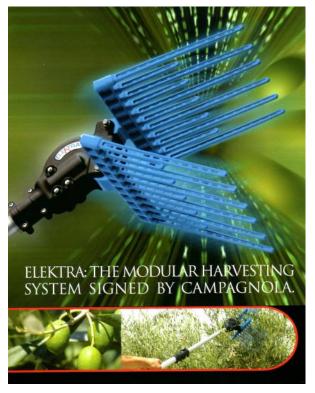
In Northern California Olives are ready for processing November through February. Olives are best kept on the trees as a rule. Those that are on ground for any length of time are not to be used for oil. The factor that most controls the quality of the oil is the time between picking of the olives and the pressing it into oil. Moving the olives to someone else's press automatically will produce oil of lower quality because of the delay. By owning your own press you can make the best oil your olives are capable of.

The olives are removed from the tree by several methods. You can use a bamboo pole that beats olives from limbs of tree while standing on ground below the tree. You can also use a pneumatic or electric rake which has an articulated joint that opens and closes using gas powered, air powered or electric tool and telescoping pole; again allows operator to stay on the ground under tree. Or you can use a ladder to reach all branches or you can pick the ol-

ives by hand or pull olives off branches with a plastic rake like tool.



and constant lubrication of the moving





The olives fall onto tarp or net spread on ground around base of trees being picked so that picked olives can be picked up and pressed, ideally within one hour. The Italians use nets to catch olives that fall from trees as they are picked. In Italy you will see nets held off ground like a "trampoline".





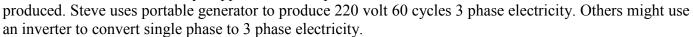


Olives are carried to a washer/defoliator where they are washed and leaves blown off and then carried up a spiraled conveyor into the grinder section of the Campagnola machine. The grinder is a flail type hammer mill that turns olives into a paste and grinds pulp and pits at same time. The pits contain some oil. A few people put a machine between washer/defoliator and press to remove pits before they are ground. Pits contain some compounds that cause oil to eventually spoil. But most growers will grind olives and pits together.

Campagnola's press passes paste to portion of the machine that works paste to correct state and then presses oil out of the paste. It then delivers oil out through a spigot at lower left part of press and expels pressed pulp out through a rear port. Intake (60 kg) of clean olives to expelled oil takes about one hour. Oil is then carried to machine that separates oil from water and other impurities. Oil is now ready for use or testing.



Karla and Steve in the Napa area have allowed me to show how they have setup press and washer in their garage. Note how washer has separated out leaves before delivering clean olives to press. Some 60 to 80 kg of olives are processed each hour to oil and waste paste. Note oil is cloudy and contains water and other impurities. It will be allowed to settle out before it goes into filtering unit. The waste paste comes out another port into tray that will be spread in orchard as fertilizer. Steve's orchard is young so trees are not yet producing the maximum amount of fruit. Steve's extended family supplies labor to pick and consumes oil





John Ribiera is a proud owner of the Campagnola press, and used it in the 2010 season. He also has young trees and will get more fruit as time goes on. John will use the press in 2011 to make oil from his own trees as well as from the trees of those who contract with him. His wife, Josie, runs a store in Copperopolis that sells all sorts of olive products. Visit their website, www.copperopolisoliveoilcompany.com, to view their products and pictures of their olive press.

