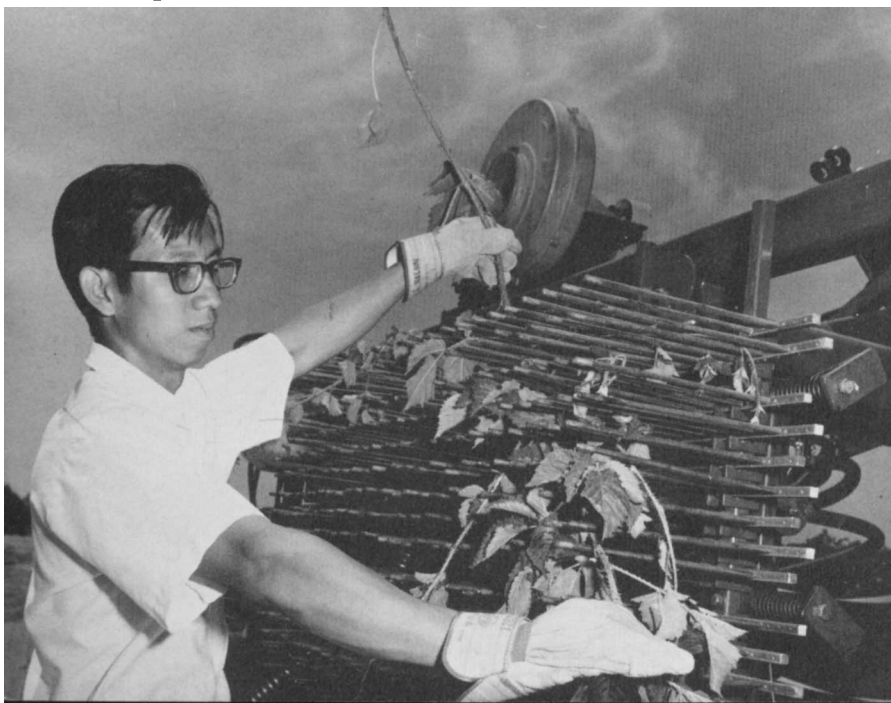# UC mechanical harvester field-freezes boysenberries

THE UC EXPERIMENTAL HARVESTER shown in photos above (and cover) instantly freezes boysenberries right off the vine. Invented by Agricultural Engineer Paul Chen, Davis, the machine shakes off the ripe berries with a set of plastic-coated steel "bristles" (lower photo, left) which are pushed into the vines and vibrated. The dislodged berries are picked up by the roller conveyer seen at the bottom of the machine (top photo, right), transferred to an elevator conveyer, and then dropped into a liquid freezant (freon) at minus 21 degrees temperature for instant quick-freezing (photo right). The freezing process dislodges field dust, and berries come out clean and ready for packaging. The stop-and-go system used for shaker mechanism in this pilot model would probably be replaced in a commercial model with a straddle-row, continuous motion machine providing conveyor-line movement of fruit through the freezing medium and into packages, ready for shipment. In first-season tests, the machine picked 70 per cent of all fruit that a hand picker would get, and 92 per cent of the top grade fruit that a hand picker would harvest—making it more than a paying proposition for growers even at this stage.

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