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How to Lay Out a Packing Shed.

By Basil Krone, Fruit-packing Instructor.

The Central Packing House business is yet only in its infancy in Victoria, and inquiries show that where organization is on the increase, consideration is being given to more up-to-date and efficient packing-sheds.

The accompanying plan, which can be modified to suit local requirements, has been prepared with a view to efficiency, and to economy in labour and handling costs. It is not drawn to any scale.

The production of a district will, of course, govern the size of the packing-shed required, but it may be mentioned that, even where a district's output does not exceed 500 cases a day, the shed should be at least 40 x 80 feet excluding the verandah, and the wall should be 12 feet high. Cramped space in a packing-shed increases handling costs. Fruit should be received at one side of the shed, and ultimately work its way through the different processes out the other side.

Sorting Conveyor and Sizing Machine.

Apples and pears should always be graded, and all blemished fruit sorted out before cool storing, otherwise the grower will be paying storage costs for fruit he will eventually discard. Some may not agree with this, believing that the tendency is for fruit to get bruised during grading operations. There is no doubt, however, that when grading and sizing are done properly less damage occurs than frequently happens to the fruit at picking time.

Stacking Case Timber to Prevent Loss.

When large quantities of case timber have to be purchased, side laths should be stacked on their edge, and ends on the flat. Experience shows that by adopting this method of stacking, loss by shrinkage and warping is greatly minimized. When making the cases up, the case-maker should not carry timber to his bench; the bench should be placed against the stack, and the timber worked out in a face.

Verandah and Overhead Conveyor.

These are special features. With them, the congestion sometimes noticed in a co-operative shed can be prevented. After the fruit has been tipped into the grader, the empty cases should not be stacked on the floor, as they will help to block up the shed. If gravity conveyors be installed (of course, they should be high enough for people to be able to walk underneath them), the cases can be transported out of the shed through port-holes or sliding windows, and slid down a broad plank to the verandah floor, where each grower's "empties" may be stacked separately, ready to be carted away. If built 15 feet wide, the verandah would hold approximately 1,500 empty cases.

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Conveyors.

These should be placed beside the nailing-down bench, or trolley-line, to convey the packed cases direct into the railway truck, or to any part of the floor space kept apart for stacking them. By doing this, much time and labour costs in handling will be saved.

Nailing-down Bench.

It will be noticed that the nailing-down bench is placed close up to the packers, thus the packed cases can be swung directly to the bench; this obviates the necessity for the packer to walk across the floor. An ample supply of lids should always be kept neatly stacked beneath this bench. In the absence of a bench, 3″ x 1″ battens should be nailed parallel on the floor to minimize bruising. Nailing-down must never be done on a hard or uneven floor.

Trolley Line and Trucks.

The trolley line is placed very close to the nailing-down bench, so that the packers will not have far to reach for supplies of cases to pack into. In addition, the packed cases can be taken away by the operator swinging the case direct from his bench to the truck, instead of having to carry it across the shed. The trolley lines and trucks, therefore, serve a twofold purpose, and further loads of new cases can by this means be taken direct from the case-maker to the fruit-grower's waggon at the door. Trucks should be made to hold not less than 50 cases each.

Louvred Walls.

This can easily be arranged for when the weatherboards are being nailed on. Louvred walls are particularly recommended for districts where any quantity of citrus fruits will be packed.

Sizing Machines.

The idea of packing house equipment, if not new to our State, has seldom been put into action. It may, therefore, be well to meet the objection sometimes argued that a sizing machine works well in the case of the individual grower, but in co-operation it is a failure, because, while the "ends" of the different growers' fruit are being finished up from the machine by, perhaps, one or two packers, the rest are compelled to remain idle until the next grower's fruit can come through. This difficulty can, however, be overcome in sheds with a fairly large output by installing either two sizing machines, or else a "two-way" machine. Then, as the grading of No. 1 grower's fruit is nearing completion, a couple of packers only need be left to finish it, while the rest of the packers may commence dealing with No. 2 grower's fruit in the second machine.

The installation of a machine-grader, if not an absolute necessity, is certainly an advance step.

By Authority: H. J. Green, Government Printer, Melbourne.

GROUND PLAN OF PACKING AND CASE-MAKING SHED.

Walls of Shed "Louvred"

Not drawn to any Scale

ROAD OR CARRIAGE WAY

RECEIVING PLATFORM

Door

Door

Door

OFFICE

Door

STORE FOR NAILS TISSUE PAPER WOOD-WOOL &c

Door

Overhead Porthole

OVERHEAD CONVEYOR TO TRANSPORT EMPTY CASES OUTSIDE SHED AFTER FRUIT HAS BEEN TIPPED INTO SORTING CONVEYOR

FLOOR SPACE TO STACK UNGRADED FRUIT WHEN RECEIVED FROM THE ORCHARDIST

SORTING CONVEYOR TO ELIMINATE FRUIT AFFECTED WITH CODLIN, BLACK SPOT &c

VERANDAH. TO STACK GROWERS' EMPTY CASES THUS RELIEVING CONGESTION IN A CO-OPERATIVE SHED.

ROAD OR CARRIAGE WAY

Door

OVERHEAD CONVEYOR

SIZING MACHINE & PACKING BENCH

PACKER PACKER PACKER PACKER PACKER PACKER

NAILING - DOWN BENCH

CASE LIDS STACKED UNDERNEATH

TRUCK TRUCK TROLLEY TRUCK LINE

TRUCK LOADS OF NEW CASES FOR EACH PACKER

CONVEYORS FROM NAILING DOWN BENCH INTO TRUCKS & VARIOUS PARTS OF FLOOR SPACE

Porthole

FLOOR SPACE TO

CONVEYOR

STACK PACKED CASES

FLOOR SPACE TO STACK PACKED CASES

CONVEYOR

FLOOR SPACE TO STACK PACKED CASES

Door

PLATFORM

LOUVRE TRUCK

RAILWAY LINE

FLOOR SPACE TO STACK EMPTY MADE-UP NEW CASES

TRUCKS FOR EACH CASE MAKER TO HOLD CASES WHEN MADE, INSTEAD OF THROWING THEM ON THE FLOOR, THUS MORE ECONOMICALLY KEEPING THE PACKERS SUPPLIED

TRUCK LINE TROLLEY

FLOOR SPACE FOR STENCILLING & PREPARING CASES FOR THE PACKERS

FLOOR SPACE TO STACK EMPTY MADE UP NEW CASES

TRUCK

Door

TRUCK OF CASE TIMBER READY TO UNLOAD

CASE MAKERS & BENCHES

ENDS

LATHS

ENDS

LATHS

CASE ENDS STACKED ON THEIR FLAT & SIDE LATHS ON THEIR EDGE SO AS TO PREVENT LOSS FROM SHRINKAGE & WARPING