

Stage C, third cutting, three days after B: General aspect of crop—ripe-coloured, but close scrutiny showed green tinge. Straw—all yellow except about 1 per cent., which showed 3 in. of green above the top knot; all knots green. Heads—ripe-coloured except about 1 per cent. still green. Grain—that in ripe heads would not squeeze out any kind of dough, but cut easily with thumb-nail. (This proved the earliest stage at which cutting meant no loss of weight.)

Stage D, fourth cutting, three days after C: General aspect—quite ready to cut, a slightly green head and stalk being found only after close search. Straw—nearly all ripe to the head, but about 5 per cent. still yellow below head. Knots—most knots still green, but about 25 per cent. half brown and a few quite brown. Heads—all ripe. Grain—will not squeeze but will still cut with thumb-nail. (No gain in weight resulted from leaving the crop till this stage.)

SUMMARY AND CONCLUSION.

A crop of wheat was cut at five different stages of ripeness at three-day intervals, and thirty plots were cut at each stage so as to reduce the experimental error of the average. The relative crops at various cuttings were computed by weighing 100 grains of each of the thirty plots cut at each stage. A calculation of probabilities showed 25,000 chances to 1 that an increased weight was securable by waiting till stage C, and that there was no further gain but only risk of loss by waiting longer. There is a 40-to-1 chance—*i.e.*, a practical certainty—that the gain from waiting till stage C is 1 bushel per acre on a 40-bushel crop.

Stage C is thus shortly defined: The green has been replaced by yellow in the top internode of 99 per cent. of the straws; all knots are still green; no dough can be squeezed out from the grain, but the grain is still soft enough to cut with the thumb-nail.

Raising Cherry-plum and Olearia Forsteri for Hedge Purposes.—Both these plants root quite freely from cuttings if properly inserted in suitable soil. It would be in nearly all cases useless to plant the cuttings in a hedge-row, as conditions suitable for rooting are rarely obtainable. For the cuttings select a plot of good friable soil where the drainage is good. Dig or deeply plough the soil, throwing aside any bulky weeds there may be, as these will not have time to rot down before the cuttings are put in. When planting the cuttings dig with a spade till there is room for a row; then stretch a line where the first row is to go. Make a trench in front of the line by inserting the spade, held quite upright, against the line and dragging the soil forward. The trench will require to be of a depth to suit the length of the cuttings, which may be placed with about two-thirds of their length in the ground. Place a row of cuttings in position, and then push some soil against them and tread it firm. Finish by digging to the row of cuttings, leaving the surface soil loose, until there is room for another row, then bring the line forward and continue as before. The plants will be ready for setting out in hedge-rows the following year.

Cherry-plum cuttings may be 12 in. to 15 in. long, and should be made from straight pieces of young wood, not thin spray. Make and plant them as soon as possible after the leaves fall, placing them about 3 in. apart. For cuttings of *Olearia Forsteri* take the ends of branches cut about 12 in. long, trim the soft tops off, cut the base square across just under a joint, and trim off side growths so as to leave a head with two or more branches. Insert so that the heads just touch each other in the row. These cuttings may be put in at any time up to the middle of August. To facilitate rooting and after-growth, the space between the rows of cuttings should be kept free of weeds and the surface frequently loosened.

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