

discoloration of the flesh on the breast. Unless all the blood is drained from a bird after it has been killed the appearance is depreciated considerably.

Severing of the jugular vein can be accomplished by inserting a pointed, narrow-bladed knife into the throat. The bird becomes unconscious, after which all the blood is drained from the body. If properly carried out, this method leaves the bird with flesh of a better colour than if the neck had been dislocated.

Dry plucking after severance of the jugular vein is accelerated considerably by insertion of the knife through the slit in the top of the mouth toward the back of the skull. A small twist of the knife destroys the nerves where the brain connects with the spinal column in the neck, causing the feathers on the body to loosen immediately. Care should be taken not to damage the brain in the front and centre of the skull, as the effect is to tighten the feathers and to make plucking more difficult. This operation is not necessary where wet plucking is used.

**Dry and Wet Plucking**

Dry plucking has been practised for centuries. A reasonably quick process in the hands of the skilled operator, particularly with discarded pullets or hens, it can be slow, tedious, and not particularly successful in the hands of a novice, particularly with a chicken, which tears easily on the feather tracts on the lower part of the neck and front of the breast.

The trend now is toward wet plucking because it is easier and quicker. Either of two methods may be used—hard scalding or semi-scalding. Hard-scalded birds may be stripped of feathers while lying on a hardwood or metal table; semi-scalded birds are often plucked while hanging up.

**Hard Scalding**

The bird is plunged into and swirled around in water between 180 and 190 degrees F. for just long enough to loosen the feathers by cooking the

muscles in the feather follicles. The feathers are then released and can be removed very easily. If the colour of the comb and legs is to be retained, the head and legs should not be immersed.

This method of scalding can easily damage the protective skin, with the result that discoloured, blotchy areas appear as the bird dries. These areas become most pronounced if the bird is subsequently placed in cold store, the appearance of the bird being affected seriously. It is also claimed that hard scalding is detrimental to the keeping quality of a bird because it damages the outer protective skin.

Because of these disadvantages the trend is toward the second method for commercial purposes.

**Semi-scalding**

The water used is lower in temperature and immersion is for a definite period, according to the class of bird. This method has the advantage that the protective skin is not damaged readily during the removal of the feathers, resulting in a bird in as good a condition as one that has been dry plucked. Plucking after semi-scalding is more rapid than dry plucking, but not quite as easy as with hard scalding.

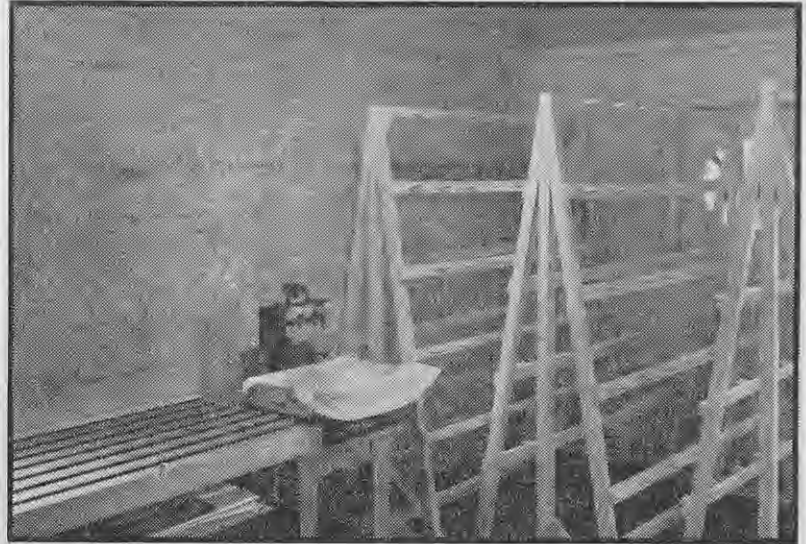
The water temperature recommended is 128 to 130 degrees F. with an immersion period of 30 seconds or 122 to 127 degrees for 90 seconds. Adult birds will stand 130 degrees for longer than 30 seconds, but birds younger than 16 weeks should be given the lower temperature for not longer than 30 seconds. Temperature and immersion time should be carefully controlled for best appearance of the final products. Birds plucked by this method may be cold stored with less rapid deterioration in keeping quality than in hard-scalded birds.

**Cooling**

To prevent bacteria causing decomposition, particularly in the region of the vent, a bird must be cooled as quickly as possible after being plucked. Cooling is desirable even if the bird is to be trussed soon after being killed, as a cleaner job can be made of trussing when the fat has set. With a bird killed by dislocation of the neck this is more important still, as it is desirable for the blood to clot fully if trussing is to be clean.

During cold weather birds can be cooled on racks in fan-circulated air, but cooling is most effective and rapid in a cool room with a temperature of 32 to 34 degrees F. If a special room is not available in summer, birds may be cooled by immersion in cold water for 6 to 10 hours, depending on the temperature of the water. Proper cooling is essential for birds to be packed for market.

Photographs on this page by Photo News Ltd.



A poultry-packing room, with racks for holding the birds before they are packed and, in the rear wall, an inlet fan for cooling.



A poultry-killing room, with tanks of hot water for semi-scalding and cold water for cooling the birds. The birds are hung on the hooks on the right for sticking and bleeding and on those on the left for wet plucking.