

KellyBronze - The Science Behind A KellyBronze

The KellyBronze is different to any other turkey on offer, mainly because of its artisan method of processing. We understand that how the turkey is dealt with post mortem, is just as important as how the turkey is grown on the farm.

To produce a wonderful turkey, that is mature, with great carcass deposition, and then to spoil it by putting it through a factory process in the interests of reducing costs and thereby reducing its eating quality, does not make sense to us. Many consumers are willing to pay more for a turkey that is “simply the best”, for special occasion meals such as Thanksgiving and Christmas.

The KellyBronze is plucked by hand, without the use of water at any stage. This is the traditional way of removing the feathers over 80 years ago. It is no longer practised because the pressure to reduce costs has led to automation and so dry plucking and ageing has disappeared from the US.

Many small farmers in Britain have continued with this tradition - which ironically is called New York Dressed. The skill of plucking poultry by hand is now in the hands of a select few.

It was the plucking of turkeys in the US for the Thanksgiving market that started the method of removing the feathers of the bird by hand without any water and then sending it to the market in its whole bodied state with just the feathers removed. Only when the turkey was going to be eaten did a knife go into the bird to prepare it for the oven.

The reason - as soon as the carcass is cut spoilage bacteria can set in and rapid decay starts.

Therefore this method of delayed evisceration was initiated purely to extend shelf life, but by default it brought about many eating quality benefits.

The modern way of plucking turkeys is to dip them in hot water and mechanically strip the feathers from the turkey by putting them through banks of rubber fingers that spin round very quickly taking the feathers out. The addition of water and the damage done to the skin whilst stripping the feathers means mother nature`s barrier (the top layer of skin) is removed. The hot water they are dipped in has a very high bug count so there is high levels of cross contamination. The addition of water into the process means bacteria can grow quickly. This is completely safe as long as the turkey is eaten quickly or gas flushed to preserve shelf life.

The KellyBronze traditional dry process removes cross contamination and water allowing the dry hanging process which breaks down the connective tissue for flavour and texture as well as destroying campylobacter and salmonella.

The Benefits of Delayed Evisceration & Hanging

When the turkey is eviscerated hot (straight after kill) all the tendons are cut and the muscles are released, they therefore contract and rigor mortis comes out of the bird with the muscle in a tight position and is therefore tougher.

What is rigor mortis?

Rigor mortis is the stiffening of the muscles after death. It is caused by the absence of a chemical called adenosine triphosphate (ADT), which allows the muscle to relax. ADT can no longer get to the muscle because circulation has stopped. The muscle starts to soften after about 72 hours due to an enzyme reaction in the muscle which starts to break the connective tissue down.

Rigor mortis is very important in meat technology. The onset of rigor mortis and its resolution partially determines the tenderness of meat. If the postslaughter meat is immediately chilled to 15°C (59°F), a phenomenon known as cold shortening occurs, where the muscle fibres shrink to a third of their original length. The KellyBronze is bought down in temperature very slowly post slaughter, to avoid cold shortening.

De-feathering the turkey without water means the evisceration can be delayed, as it will not start to “go off” (remember the bacteria cannot grow without water)

Because the evisceration is delayed, rigor comes out of the bird with the muscle in an elongated natural position not in a contracted position. And is therefore tender.

There is plenty of science behind why a KellyBronze is so good. It is no coincidence that we have won every award there is to win in the UK. We look at the chain of events in the production cycle and ensure we use procedures and inputs to get the best results for every step of the way. Right from pure line genetics through to ensuring it is cooked correctly on the day.

For example, free range, organic, heritage, all mean very little on their own. They are only a part of the perfect quality chain.

The KellyBronze is the turkey our forefathers would have eaten. The same breed using the same traditional artisan methods of plucking and processing.