



LELAND SOUTHWEST

MANUFACTURERS OF PROCESSING EQUIPMENT

ADVANTAGES OF TUMBLING

- 1) Improved brine penetration and uniformity.
 - Each batch is the same because of mechanical agitation.
- 2) Uniform Cure color development.
 - Mechanical agitation provides even distribution of cure.
- 3) Improved release of salt-soluble protein enhancing product Bind and coherency.
 - The extracted protein provides the bonding cement for holding the muscle sections to gether in the finished product during processing and consumption.
- 4) Development of a more uniform fine texture.
 - Tumbling will brake down the muscle structure of the product for a finer texture.
- 5) Improved tenderness.
 - Tumbling enhances tenderness by braking down the muscle sections, connective tissue and fat, making them more pliable.
- 6) Improved yield during processing.
 - With the combination of added phosphate and mechanical agitation, yields are increased greatly.
- 7) Reduced product weight loss during consumer preparation.
 - The extracted exudate coagulates and seals in moisture during the cooking processes.
- 8) Production of a finished product with very desirable slicing characteristics.
 - During tumbling, the fibers are broken down and a tacky exudate covers the muscle, bundles and fibers. When the muscles are compressed and the ham subsequently is cooked, the exudate coagulates and increases the bind between muscles and their components. This bind holds the product together for a complete, whole slices of product.
- 9) Savings
 - There is usually a 50% reduction in processing materials cost. You will use 50% less sawdust, which will produce a 50% savings. There will be a 20 to 30% savings in energy, with 1 to 3 less hours of smoke housse time. There will be less ecological contamination. No salt, nitrates, phosphates or additives to run down the sewer systems. About 2/3rds less water wasted.