



The University of Georgia

Cooperative Extension Service

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PROCESSING TIP . . .

CHARACTERISTICS OF WASTEWATER

Treatment of wastewater from a processing plant has become an increasingly more expensive cost of poultry processing. It is not uncommon for processors to have more than one-half cent per pound of dressed weight in water and wastewater costs.

Studies at the University of Georgia have shown that wastewater has specific characteristics. Knowledge of these characteristics can lead to operational changes resulting in wastewater treatment cost reduction. These operational changes can include processing equipment that does not grind giblets and offal into small particles that can not be removed by conventional screens and multi stage flotation that can remove particulates without chemical flotation.

- The organic material in wastewater is mainly in the form of tiny particles of fat, meat and organ tissue. Prior studies have shown that when particulates are removed, organic compounds may be reduced by 75-80 percent.
- The larger particles have a higher fat content than the smaller particles. Particulate material that is 100 microns or greater has the highest fat content. As particles get smaller, the fat content is reduced and the particles are mostly composed of organ tissue.
- The particulate matter in wastewater is smaller than would be expected. Using laser defraction and micro screening, it was found that more than one half of the particles were less than 75 to 100 microns.

Using these data, processing systems and wastewater treatment systems can be designed to capture particulates as primary offal which has a value of about 2.5 cents per pound, rather than converting it to Dissolved Air Flotation (DAF) material which has a neutral value, or sending it to a biological treatment system where it has a negative value.

William C. Merka

Extension Poultry Scientist

Extension County Coordinator/Agent

Your local County Extension Agent is a source of more information on this subject

PUTTING KNOWLEDGE TO WORK

The University of Georgia and Ft. Valley State College, the U.S. Department of Agriculture and counties of the state cooperating.
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