Bulk Density of Extruded Potato Sticks

Purpose: Test the effects of processing aids (Nu-RICE® vs. Myvaplex®) on bulk density and shape, in potato sticks.

Equipment: American Extrusion Advantage Series
Screw Speed 250-350 RPM

Processing Aids: Nu-RICE® Emulsifier and Myvaplex®

Formulation:
- Corn Grits 70%
- Potato 30%
- Moisture 17.5%
- Processing Aid 0.25% - 2.0%

Observations: There was a significant visible expansion and length difference between the Nu-RICE® Emulsifier and Myvaplex® samples.

Conclusion: The Nu-RICE® Emulsifier can be used anywhere from low to high rates (as needed) and provide lower bulk density than Myvaplex®. At equal use rates of the processing aid, the Nu-RICE® Emulsifier sample was 12.4% lower in bulk density than the Myvaplex® (sample 1 vs. 2).

Cost Savings: The Nu-RICE® Emulsifier allows the snack maker to provide 12-15% more volume per unit to the consumer, or the ability to decrease the weight and provide the same volume. This can create a 10-12% cost savings!

Nu-RICE® Decreased Bulk Density by 12-15%