



## **Nu-RICE<sup>®</sup>** Oil Migration Control

With explosive growth in nutritional bars of all types, the use of ingredients with oils (that are liquid at or near room temperature) creates significant problems for food formulators. Specifically, the use of peanuts and peanut meal is being used more and more in these products to provide healthful protein and oil in the nutritional bars. As the use rates of these ingredients increase, the issue of controlling oil migration within or on the surface of the bar becomes paramount. While this migration is not nutritionally problematic, the “oil slick” formed on the surface is not visibly acceptable to the consumer.

Emulsifier additives are used (lecithin, mono- and diglycerides, polysorbates, etc.) in an attempt to minimize oil movement. Success from additives is limited and labeling becomes less than “clean” in a supposedly healthy nutrition bar.

**Nu-RICE** from RIBUS is an all-natural non-GMO ingredient has been exceptionally successful in controlling oil migration, even in the most difficult situations (peanuts in enrobed chocolate products). When added to the extruded formulation at about 0.25%, oils are held in place with no surface migration seen after as long as eight months! Similar improvements with essential flavor oils such as mint, spearmint, etc. are also seen. **Nu-RICE** has also provided much of the needed barrier to prevent inclusions from becoming soft.

Use rates for **Nu-RICE** are significantly lower than those required for lecithin or mono- and diglycerides (which have limited success in controlling migration) resulting in a lower overall cost and more success controlling oil. **Nu-RICE** contains natural antioxidants to provide enhanced stability of the oils present within the product.

Use Rate:

### *Extruded Bars*

Blend 0.25% (or less) of **Nu-RICE** with other dry ingredients (prior to adding oils or wet ingredients) and proceed with typical processing steps. Any shear or work put into the mass will allow improvements in the **Nu-RICE** functionality (binding oil with other compounds).

### *Extruded Inclusions*

Blend 0.5-0.75% **Nu-RICE** with the dry ingredients prior to extrusion. The addition of the **Nu-RICE** will work with other water activity efforts and minimize water and oil migration.