## **Public Researchers:**

**Kathleen Warner**, Research Scientist for USDA/ARS National Center for Agricultural Utilization Research, Peoria IL, has published research showing that **NuSun**® performed as well as high oleic sunflower oil and better than partially hydrogenated sunflower oil with the added benefit of superior taste in the finished fried product.

Frying Quality and Stability of Mid-Oleic Level Sunflower Oil, Warner, K. and Kleingartner, L.

Dr. Edward Perkins, University of IL, conducted a commercial study with NuSun® oil in a university dining hall facility comparing NuSun® to partially hydrogenated creamy soybean oil normally used by the university. He found it to be equal in functionality with a superior nutritional profile. "It can easily be said that NuSun® is a superior frying oil," said Perkins.

Abstract, Commercial Frying with NuSun® Oil, Perkins, E.

# Heart Healthy Benefits Too!

Initial results from a recently completed diet study done by Dr.



Penny Kris Etherton of Penn State showed that individuals on a **NuSun**® sunflower oil diet experienced a significant reduction of total and LDL cholesterol compared to an average American diet,while an olive oil diet did not show significant cholesterol reduction.

Abstract 7930 (revised). Experimental Biology 2003, San Diego CA.

## High Oleic

High oleic sunflower oil is an excellent choice when added stability and shelf life is required. Oleic levels of 82 percent and higher are commercially available. High oleic sunflower oil is suitable for many food applications. It is most often used as an ingredient in confectionary products, non-dairy creamers, as spray oil on dried fruit, crackers and cereals; and, as liquid oil for flavors and seasonings. Of course it is well suited as a frying oil as well. Again, its excellent stability provides real advantages for food manufacturers. Its neutral taste is an asset as well.

### For Supplier Information

Go to *www.sunflowernsa.com/buyers/suppliers/detail. asp?categoryID=12* for suppliers of crude and refined sunflower oil.



2401 46th Ave. SE, Suite 206 Mandan, ND 58554-4829 701-328-5100 • FAX: 701-663-8652 Toll free: 1-888-718-7033 www.sunflowernsa.com



# Nuse Nuse Sunflower Oil Today's Healthy Oil Choice





Are you looking for oil that delivers great taste, performance, a healthful profile and no trans fats? Consider **NuSun**® – the 'new' sunflower oil, a balanced blend of mainly monounsaturated and polyunsaturated fats. It has the clean, light taste that sunflower oil is famous for and does not need partial hydrogenation for commercial applications.

#### NuSun® Provides:

- Great flavor
- A healthful fat profile
- Stabilitywithout partial hydrogenation
- $\cdot \;$  A trans fat free choice
- A source of linoleic acid (Omega 6)
  - an essential fatty acid that enhances the taste of products
- Low saturated fats, less than 10%
- A natural oil developed with standard breeding techniques
- Excellent frying performance high smokepoint of 450 °
- · Excellent shelf stability
- $\cdot \,$  A good source of Vitamin E

# What's in a name?

The term **NuSun**® was coined in 1997. It describes the category of sunflower oil that matches the parameters of the new mid-oleic sunflower oil. Suppliers have given it their own unique product name, but ask for **NuSun**® or mid-oleic sunflower oil.

The **NuSun**<sup>®</sup> logo is also available for use on your packaging to note your healthy oil choice. Contact the National Sunflower Association for more information.

# It Works!

Since *NuSun's*® introduction to the marketplace in 1998, it is being successfully used by major snack food manufacturers and food service applications. It is being tested or used for applications such as baking, salad oil, dressings, baby formula and other uses. "NuSun® can be successfully used in any liquid oil application" says oil specialist, Ed Campbell, a forty-six year food industry veteran.

# Comments from Users of NuSun®

"Thrilled with results of NuSun®." "Simply lasted longerwith better overall results." "One of the best all-around oils I have ever used." "Customers said my french fries tasted better!" "Customers love its taste and the staff loves it performance."

# NuSun® -- another healthy sunflower oil choice...

NuSun <sub>®</sub> Sunflower Oil	65%	26% 9%
Linoleic Sunflower Oil	20%	<b>69% 11%</b>
High Oleic Sunflower Oil	82%	9% 9%
	OLEIC	LINOLEIC SATURATED

# Compare NuSun® to popular oils...

NuSun <sub>®</sub> Sunflower Oil	65%	<b>26%</b> 9%
Olive Oil	71% 10%	18%
Canola Oil	62%	<b>% 9% 6</b> %
Cottonseed Oil	18% 54%	27%
Corn Oil	28% 5	8% 13%
	OLEIC (C18:1) LINOLEIC (C18:2) LINOLEIC (C18:3)	SATURATED

## **Research Proves It Works!**

The frying stability of **NuSun**® was compared to several different commercially available frying oils in controlled laboratory studies. **NuSun**® performed as well as partially hydrogenated frying mediums and superior to that of soybean, canola, peanut, cottonseed and corn oil. **NuSun**® also exhibited less darkening and foods fried in it developed a more pleasing fried food flavor.

Edward C.Campbell, Tom Tiffany and Jennifer Gerdes, 1999, 2000, 2001. NuSun® Frying Stability. In proceedings of the 21st, 22nd, 23rd Sunflower Research Workshop, Jan. National SunflowerAssociation, Bismarck ND.

#### Pringles has accepted NuSun® as one of its frying oils.

David Chang. 2001. NuSun® Quality and Industrial Frying Application, n proceedings of the 23rd Sunflower Research Workshop. 17-18 Jan. National Sunflower Association, Bismarck ND.