McCain launches low lin line

In late April, McCain Foods, the largest French fry producer in the world, announced that it was launching a new French fry product cooked in low linolenic canola oil. The line is called McCain Superfries, "A Healthy Decision".

McCain has been using canola oil for about 15 years in producing its potato products. The company decided to introduce its new line when oil from the variety Apollo became available. The new McCain Superfries line is in response to concerns raised by some nutritionists about trans fatty acids which are by-products of vegetable oil hydrogenation.

Hydrogenation is done to increase the stability of vegetable oils for some applications such as deep frying. A hydrogen molecule is added to polyunsaturated fatty acids which make up the vegetable oil, increasing the saturation level and, in turn, its stability.

Oil from the canola variety, Apollo, contains a low level of the polyunsaturated linolenic fatty acid, 17 percent compared to 9 or 10 percent in conventional canola oil. As a result, this low linolenic canola oil does not require hydrogenation for the purposes McCain is using the oil.

Paul Dean, who is involved in research for McCain Foods, said that the company started testing various oils a couple of years ago after becoming familiar with American and European studies on the implications of trans fatty acids in the diet.

"We looked at sunflower, safflower and three types of canola oil, slightly hydrogenated, more partially hydrogenated and unhydrogenated. About the same time, we heard about Apollo being developed at the University of Manitoba. We tested the oil and we really liked it. It seemed to give the best flavour and good stability," commented Mr. Dean.

The variety Apollo was first grown commercially in 1994. It is an improvement in yield, oil and protein content over the University of Manitoba's first low linolenic line, Stellar. According to University of Manitoba plant breeder Rachael Scarth, the variety yields equivalently to Legend, "plus or minus five percent over the long term".

"The characteristics of the oil for frying purposes have been changed from those of (traditional) canola to a more stable oil like sunflower. It has extended frying life and improved odour and flavour stability," said Dr. Scarth. 

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