

## Rapid Analysis of Natural Oils

### Specialist Natural Oils

Northstar Lipids specialize in functional, high value plant derived natural oils, supplying primarily the cosmetic, nutritional and pharmaceutical industries. A key focus of the company is assisting customers with selecting the right oil for their needs.

### Business Demands

The business culture of Northstar Lipids involves the whole supply chain:

- Contracts with growers and processors to obtain the best raw materials
- Selecting the correct processing technology to deliver the right finished product
- Forming strategic long term partnerships with suppliers and processors for continuity and consistency of supply
- Providing customers with in-depth technical and formulation advice for new product development

### Laboratory Facilities

Historically Northstar Lipids used contract laboratories for all oils analysis. *“Whilst this worked reasonably well, annual costs were quite significant and the wait for results (typical turnaround times were up to 7 days) had to be factored in to schedules”* says Northstar Lipids’ Technical Manager Norman Harris.

With the available in-house expertise there was a major drive to improve the oil analysis situation to benefit the whole business, from testing raw materials to new product development. But without a large existing laboratory setting up traditional analysis techniques for oils was impractical. A different analysis solution was needed and the FoodLabFat system fitted the bill.

### The FoodLabFat Oil Analysis System

The FoodLab range of analyzers require a relatively small work area and no specialized facilities such as extraction hoods, so can be set-up in an existing area with some bench space straight away. The FoodLabFat system can analyze natural oils and fats quickly and easily using pre-filled test cuvettes and low-toxicity reagents. The instruments are also pre-calibrated at manufacture so no future calibration is required.

### Real Benefits of the FoodLabFat

Norman Harris highlights the most significant benefits of the FoodLabFat since they started using it. *“Running costs are comparable to conventional methods, especially when the costs of solvent waste disposal are taken into account. In comparison to the costs of using external laboratories, payback time is expected to be less than 2 years. The instrument is straightforward to use and offers a good range of analyses suitable to our needs.*

*The instant availability of results means decisions on approval of batches can be made immediately, compared with the wait when external laboratories were used. In addition, although problems are rare, it does make it quicker to deal with these and be more responsive to customer enquiries. The new product development process is improved as we are able to assess more oil samples with a quicker turnaround than previously”.*

### The FoodLabFat

The FoodLabFat measures Free Fatty Acids, Peroxide Value, p-Anisidine Value and Soaps. It is part of a range of analysis systems in the FoodLab range with applications for food, oils, fats and beverages. Test times on the FoodLabFat are very fast:

- PV: 3 minutes
- FFA: 1 minute
- p-AnV: 1 minute
- Soaps: 5 seconds

For more information visit: [www.qclscientific.com/foodlab](http://www.qclscientific.com/foodlab)



*The FoodLabFat in Northstar Lipids laboratory*