

## Easy, Quick, Cost-Efficient Product Development

### Three good reasons to use *Oil-Expert.net*

The development of an up-to-date healthy fat blend requires a lot of development activities carried out by qualified personnel in the laboratory, be it for a new or improved application, quality improvement or cost reduction. The new version of *Oil-Expert.net* includes a product development management system that covers the complete product development cycle.

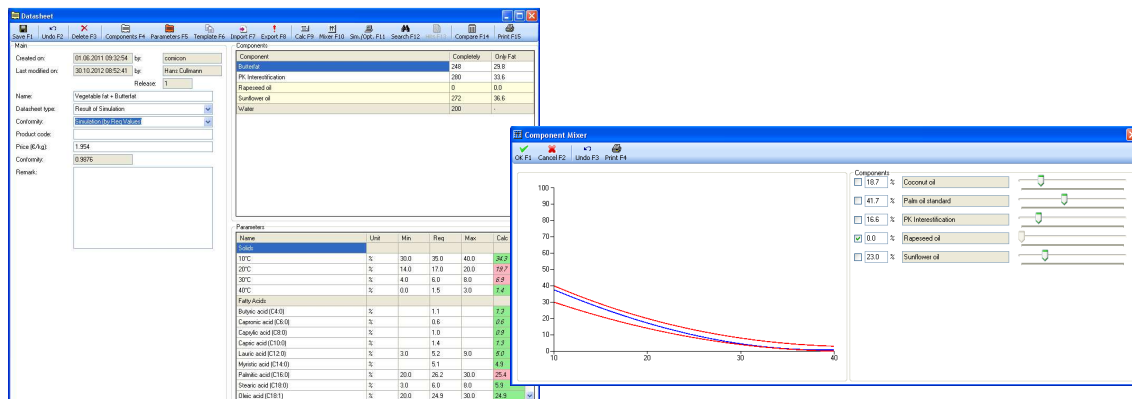
For the development of new products a new sophisticated program - *Oil-Expert.net* - is now available for every fat chemist and/or product manager. The easy-to-use program settles a great part of the work in the laboratory on the computer. Our unique and special know how is linked to the fact that the all software developers have worked in practice as a fat chemist. The software has been successfully tested in leading refineries and margarine plants in Germany, Europe and worldwide.

#### 1. Easy-to-use

*Oil-Expert.net* is a software easy-to-use that makes you more productive. For a fat chemist the software is intuitive to use - without a manual (but it will be shipped with the software). The reason is that the operation of the software is based on the thinking of a fat chemist. At our company, our goal is it to make your job easier, and what better way is there to do that than develop easy-to-use software.

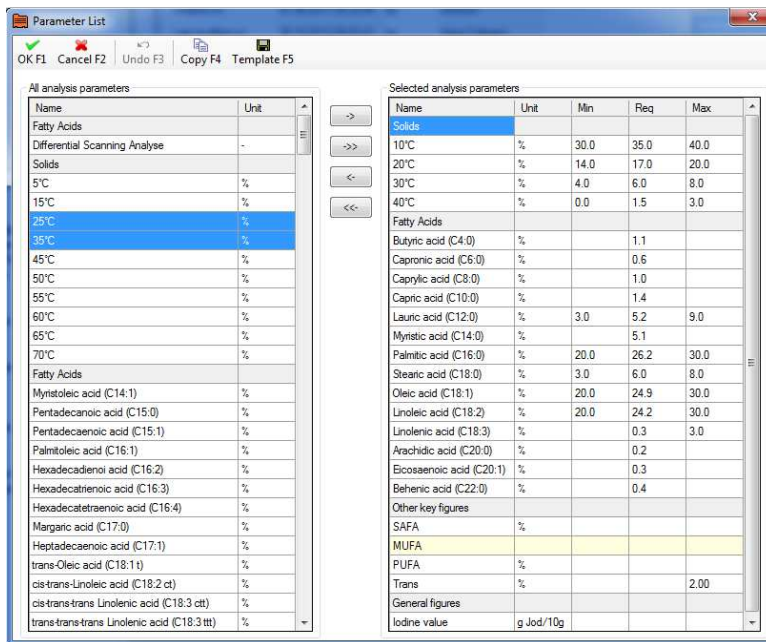
Here are two examples which show how easy and intuitive way of working is:

- Variation of component quantities of a fat blend by moving the sliders on the right side and see the recalculated parameters on the left side (eg Solid Fat Content, Fatty acids, etc.)



# Oil-Expert.net

- Filling out forms by copy and paste or drag and drop. Data import is available with optional import functions.



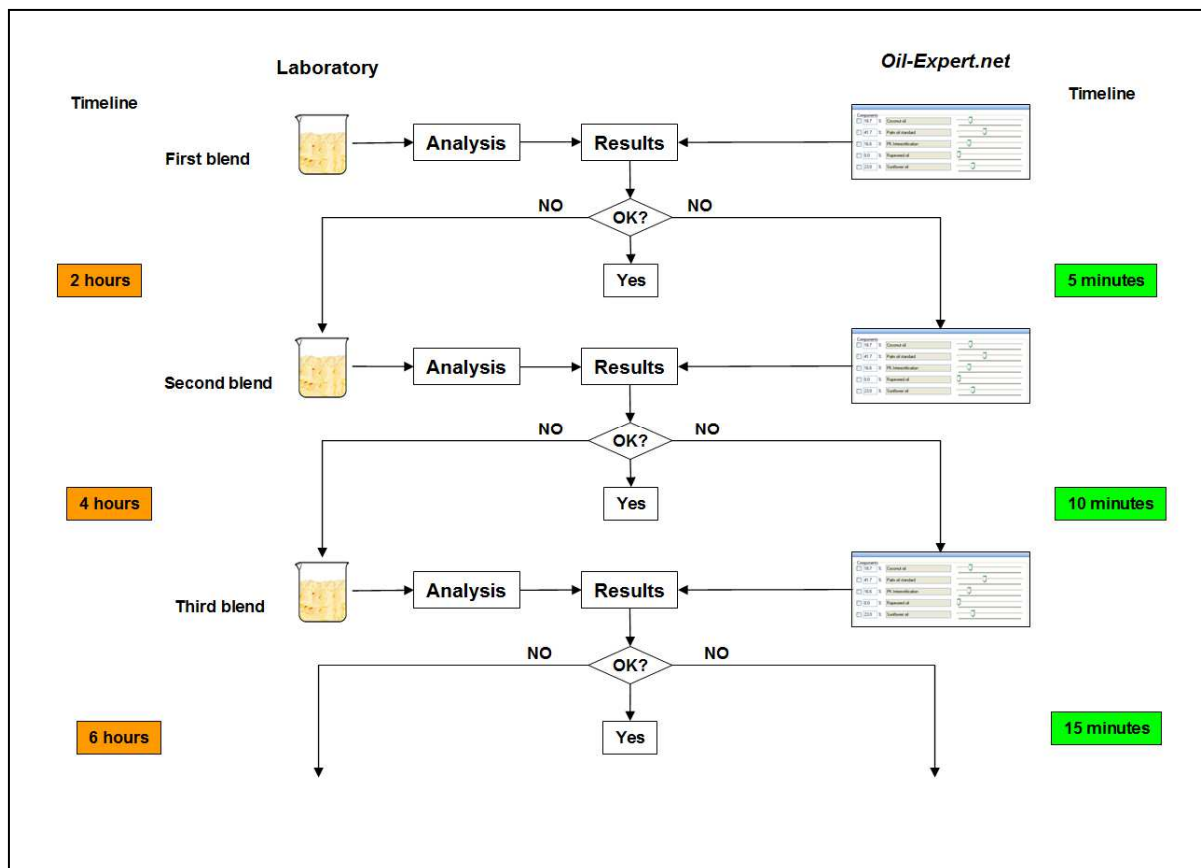
## 2. Quick

*Oil-Expert.net* is very quick to calculate physical and chemical parameters of fat blends. One of the physical parameters is the Solid Fat Content. *Oil-Expert* is working with special algorithms to calculate the Solid Fat Content of fat blends. The calculation works also well with blends consisting liquid oils and coconut/palm kernel.

The quick calculation of the parameters instead of blending, analysing and interpretation in the laboratory allows:

- Application development: quick and easy
- Quick reaction on customer inquiries
- Quick and flexible reaction on changes of the market

The picture on the next page shows the significant time savings using *Oil-Expert.net*, especially if several mixtures are required in order to achieve the desired results.



The rate-determining factor in the analysis is the measurement of the Solid Fat Content - about 2 hours per measurement including blending, crystallization and tempering of the samples.

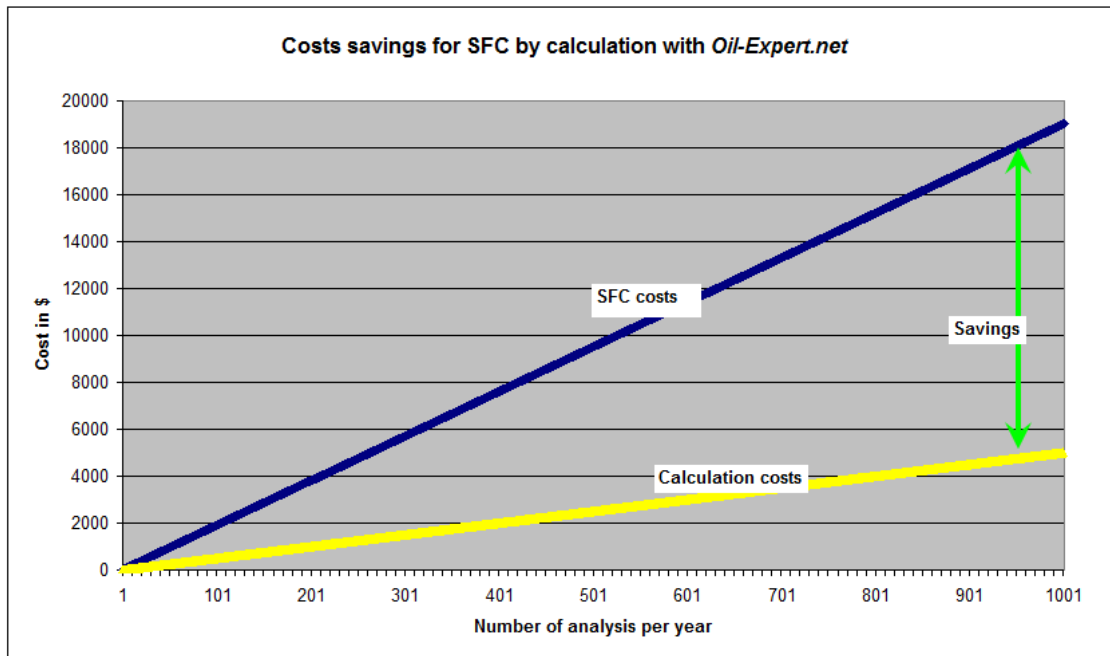
### 3. Cost-Efficient

With *Oil-Expert.net* there are two ways to reduce costs:

- For one you can by extensive use of *Oil-Expert.net* reduce laboratory costs. To measure the solid fat content costs about \$ 6 per test tube (the \$ 6 include all costs such as personnel costs, room rental fee, energy, minispec, etc.). Determination of Solid Fat Content for four temperatures therefore costs \$ 24. When calculating with *Oil-Expert.net* the costs are \$ 1 per minute, regardless of the number of the calculated parameters.

The above example gives a cost savings of 23 \$ for each blend, considering only the determination of the Solid Fat Content. By the inclusion of other types of analysis, for example GC, the costs savings increase.

The graph shown on the next page impressively demonstrates the cost savings as a function of the number of analyzes (only Solid Fat Content).



Costs savings by calculating the Solid fat Content (SFC) with *Oil-Expert.net*.

- Another way to save costs is the price optimization of raw materials. The raw materials - oils and fats - are traded on the stock exchange and are subject to regular partly large price fluctuations. To optimize the prices *Oil-Expert.net* has a special module that determines the recipe with the lowest price in accordance with all specifications. To import the daily changing commodity prices, an optional import function is available.

The cost savings with regular use of price optimization is enormous. At 10,000 tons raw material consumption per year and a savings of 1% of the average commodity price of \$ 1,000 / ton gives an amount of \$ 100,000 savings per year.

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We would be glad to provide you with further information. Please feel free to contact us.

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