Easy, Quick, Cost-Efficient Product Development

'Nice to Have Utilities'

Around the world the commodity prices for fat and oils are rising. At the same time, the requirements for the quality of fats, oils and fatty products are becoming more diverse and complex. Therefore the new version 6.3.0 of OilExpert.net comes with new functions for the calculation and optimization of fat blends. In addition to many smaller improvements and extensions, there are three major new features:

- Definition of minimum and maximum amounts for individual components in fat blends for the price optimization and the 'Component Mixer'.
- The 'Component Mixer' has two additional functions - a function to delete individual components and a selection box to add additional components.
- For the calculation of the Solid Fat Content using the so called 'Solubility Factors' there are new correction factors, which are much easier to handle. However, the old factors remain for compatibility reasons.

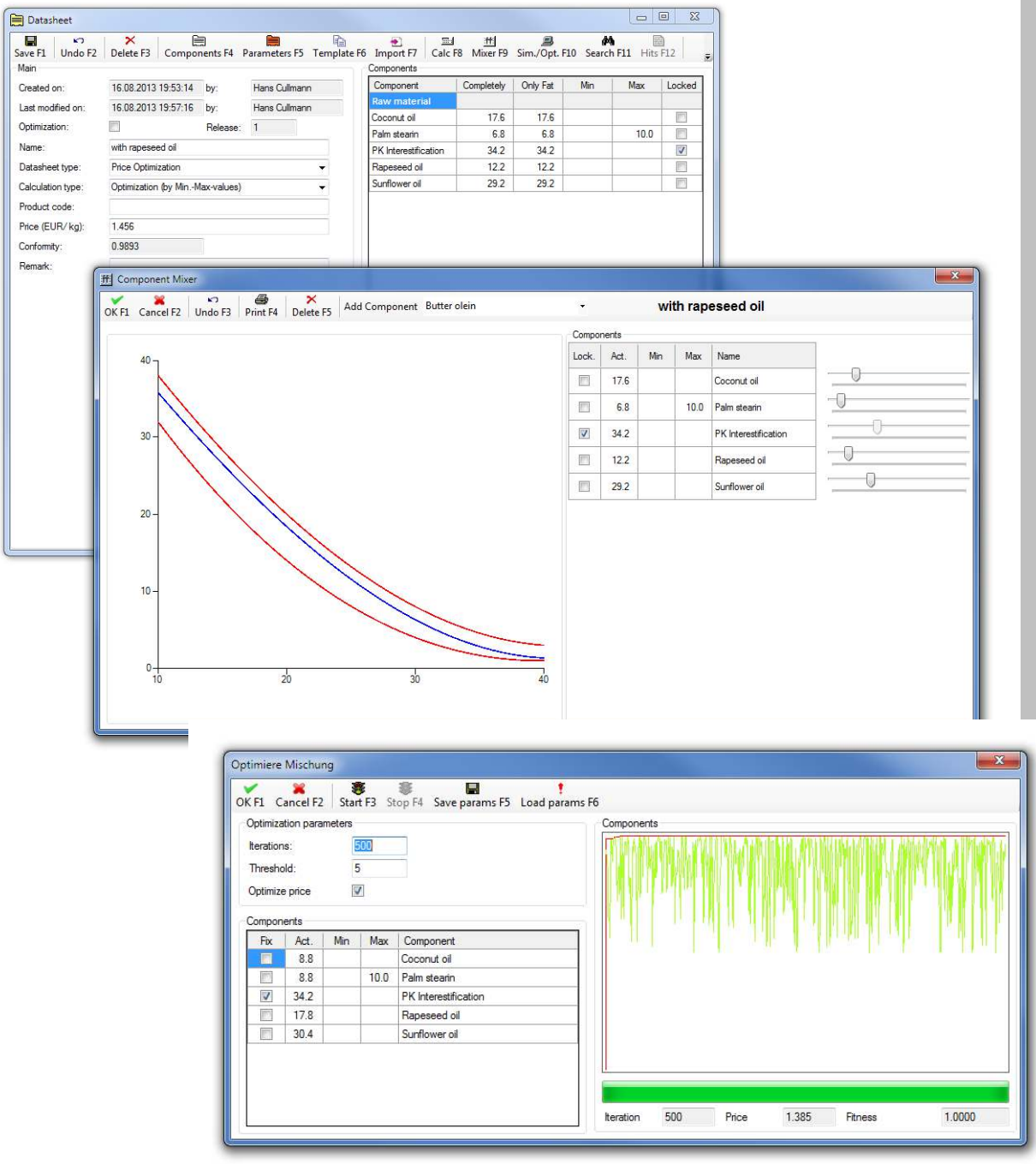
Price Optimization - Min-/Max-Percentage

The results of research and product development have a very great ainfluence on the cost of the products. The production can not be save the costs even by the most sophisticated production processes or by purchasing strategies, which has not been awarded to opportunities in project development.

In the production of fats, oils and fat-containing products the largest cost factor is the fat and oil. Therefore in this area the most significant savings can be reached, especially because these commodities are traded on the stock exchange and are therefore subject to more or less price fluctuations.

To underline the importance of raw material costs, a short simplified example to illustrate: At 70% proportion of raw material costsin the total costs and a operating profit of 5% before interest rates and taxes, results in a reduction of raw material costs of 1% increase in operating profit to 6% - that is an increase of 20%. If you wanted to reach the same effect with an increase in sales, 20% more sales would be required. This littel example clearly shows how important the factor raw material costs is. Negligance and omissions in raw material purchasing therefore should not happen in light of this leverage effect. Errors in the purchase of raw materials can have an affect on the existence of a company, what the past has shown.

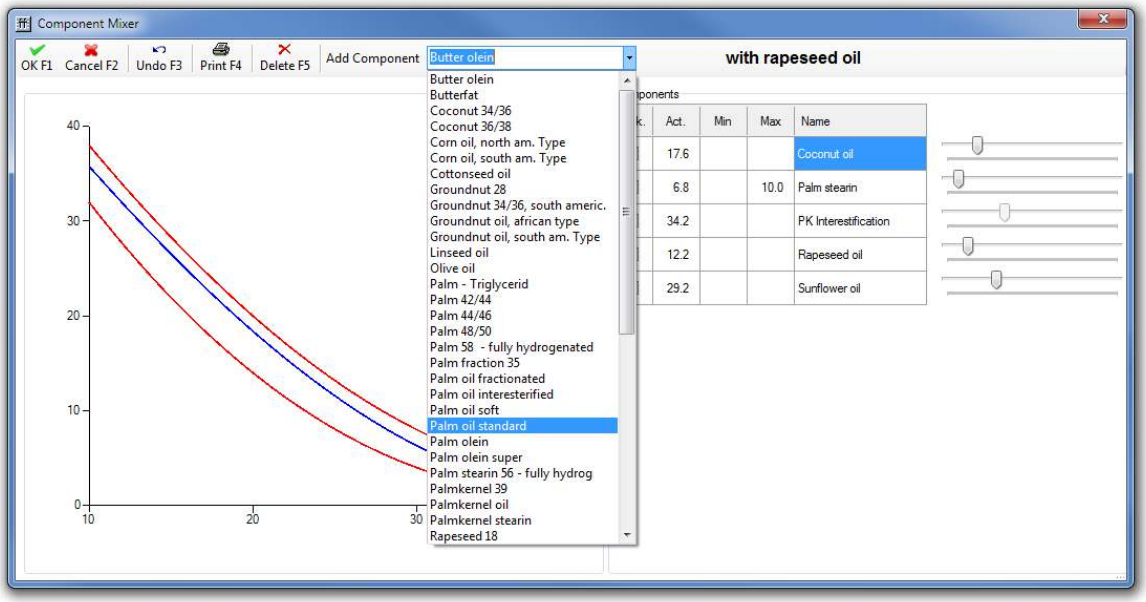
To optimize the raw material costs with OilExpert.net, the module Price optimization is used. To simplify the optimization, it is now possible to define for each component minimum and maximum values for the percentage next to the fixing of single components to a fixed percentage. This is often necessary, as shown in the dialogs below. The Palm Stearin is limited in this blend to a Max-content of 10%. At higher levels the fat blend would leave a tallowy taste on the tongue. The limits are taken into account both the Component Mixer as well as the automatic price optimization.



Component Mixer - Adding/Deleting Components

The Component Mixer (see figure below) is used for easy and efficient development of a fat blends by changing the proportions of the blend with the sliders to be seen in the figure below. To add or delete components, you have to close the Component Mixer and make the changes in the components dialog, which is accessed via the so-called Data Sheet. A somewhat more complicated procedure.

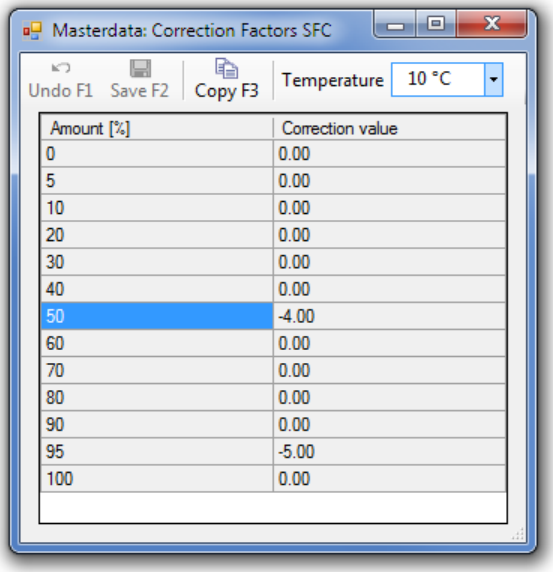
With the new version, changing all parameters in the Component Mixer dialog is possible. In addition to the min / max values all components can now be deleted and other components can be added. When deleting the amounts of the remaining components are normalized to 100%, according to the level of the amounts. When you add a component, the component is initially set to 0% and can be increased thereafter with the slider.



Correction Factors for the Calculation of the Solid Fat Content (SFC)

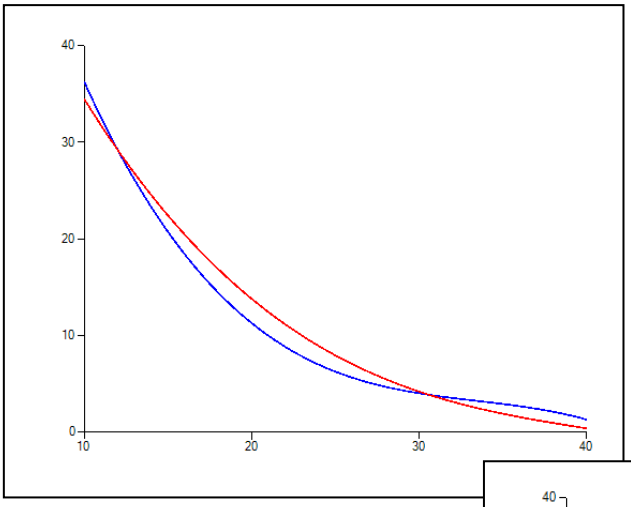
The calculation of the SFC values is a compromise between accuracy and efficiency, ie. Lab input. To 'difficult' oils and fats (for calculation of SFC values), such as Coconut oil or Palm Olein, correction factors are required. So far, the correction factors were applied multiplicatively, ie. the calculated values were multiplied by the factor. There are problems with this method if the SFC values are very small - below 1 The correction factors must be very big in this area, and sometimes a correction is not possible.

To improve this behavior, new correction factors have been developed by our company which make the correction additive. This simplifies the handling of the factors and corresponds to a more 'subjective' way of working. The correction factors are dependent on the percentage of the component. A practical example is shown in the dialog right side using double fractionated palm olein.



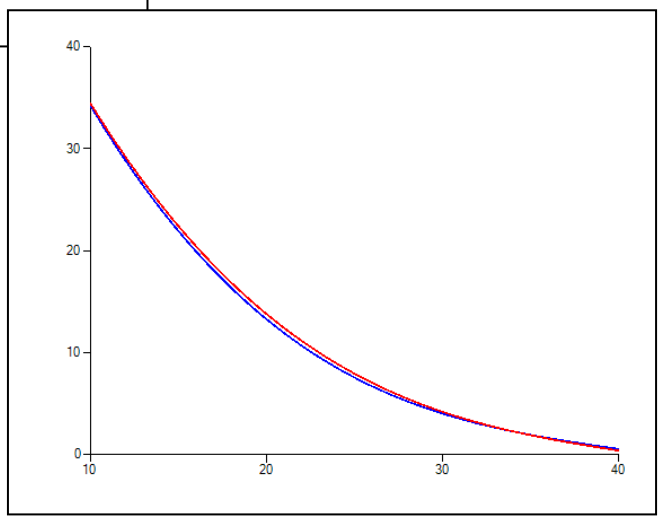
The effect of the new correction factors is documented with the two images below - No correction factors / With correction factors.

The previously used factors of course remain for compatibility reasons. So there must be nothing changed for all existing components.



No correction factors

With correction factors



For more information, including the previous newsletter and a product brochure, please visit the websites listed below.

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

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More informations and demonstrations of the software is also available on the following events:

- 12th Euro Fed Lipid Congress, Montpellier, Frankreich
  14. - 17. September 2014, Table Top Exhibition Tisch 9, comicon/LAIX
  Please contact Dr. Hans Cullmann

- 106th AOCS Annual Meeting & Expo, Orlando, Florida, USA
  03. - 06. May 2015, Booth of the EuroFedLipid
  Please contact Dr. Frank Amoneit

- Oils + Fats, München
  17. - 19. September 2015

- 13th Euro Fed Lipid Congress, Florence, Italy
  27. - 30. September 2015

Demo Version
From now on a demo version is available with full functionality. This version is six months runnable and can be extended if necessary. If interested, please contact any of the above contacts.