

## **Advantages of Oil-Expert.net in Times of Crisis**

### **Preamble**

This newsletter is not about new features and updates. Today we want to show you the areas in which working with Oil-Expert.net brings advantages, especially in times of crisis. It is not only the pandemic that is having a serious impact on the fat-processing industry, but also the war in Ukraine and the resulting political decisions. In addition, there are constantly increasing specifications and legal requirements, supply bottlenecks, interruptions in supply chains, high raw material prices and the effects of the so called 3D effect - **D**eglobalization, **D**emographics and **D**ecarbonization.

All these effects require an increased deployment of personnel, but skilled workers are now in short supply. So what to do? The solution is the fourth D – **D**igitization, ie. the use of software. The Oil-Expert.net software has proven itself in the fat-processing industry for almost 25 years. Oil-Expert.net is much more than management software for specifications, recipes and raw materials, but an active product development system, a system that helps you to manage the 3Ds quickly and inexpensively:

- **D**eglobalization – Disruption of supply chains
  - Solution : Change of recipe
- **D**emographics – Lack of skilled personnel
  - Solution: Product development with Oil-Expert
- **D**ecarbonization – Sustainable raw materials
  - Solution: Recipe optimization

Crises also offer new opportunities. The crisis opens up the possibility of a massive modernization push - in digitization, raw material diversification and product development. The advantages for many areas of a company are significant. Below is a summary of the departments of a company that benefit from Oil-Expert.net.

- R&D Product Development
- Quality Management
- Raw Material Purchase
- Human Resource Management
- Management

The company-wide benefits of Oil-Expert.net are covered in this newsletter.

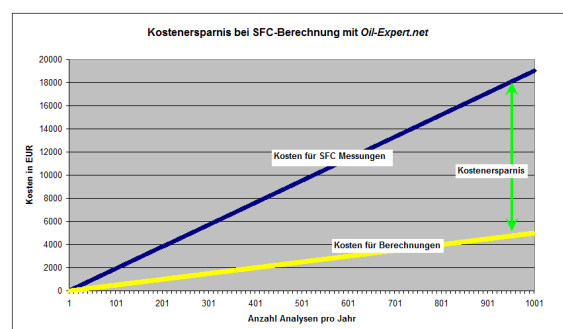
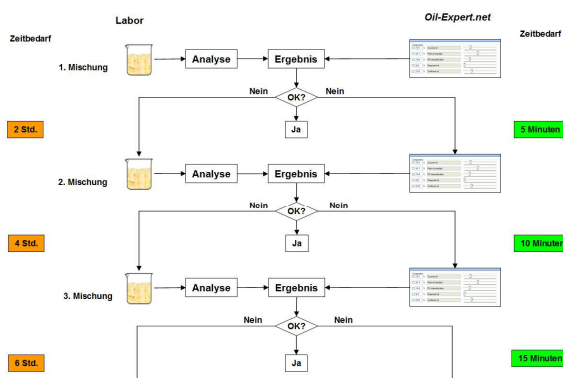
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## R&D – Product Development

Most of our newsletter readers are already well aware of the advantages of Oil-Expert.net as a fat designer. If not, we recommend the newsletters on our website [www.oil-expert.net/downloads/](http://www.oil-expert.net/downloads/). Oil-Expert.net has become an institution in almost 25 years. Once you've worked with it, you won't want to be without it (Newsletter 1 and 6). This is also due to the fact that Oil-Expert.net, with its extensive functionality, has a worldwide unique selling point, at least to our knowledge. The broad spectrum ranges from the calculation of the SFC values of fat mixtures (Newsletter 7 and 8) to the calculation of the SFC values of interesterification (Newsletter 11 and 12) to the determination of recipes from analysis parameters (Newsletter 2) and much more that makes the fat chemist's work easier, e.g. the component mixer (Newsletter 4) or the convenient search function (Newsletter 2). In addition, Oil-Expert.net naturally also handles administrative tasks similar to a LIMS - such as managing raw material data including history, project data, recipe data, customer data, customer samples, etc.

The benefits of Oil-Expert.net in product development can be summarized in five points:

- Expenses **Down** ↓
- Developing time **Down** ↓
- Complexity **Down** ↓
- Quick response **Up** ↑
- Efficiency **Up** ↑



Increased efficiency – Cost and time savings

## Quality Management

The data management functions of Oil-Expüert.net are important for quality management - keyword "specifications". In addition to specifications, it is also possible to store production instructions for each product, so there is a wide range of functionalities:

- Raw material specifications incl. history
- Product specifications
- Production instructionsn

Of course, all specifications can be imported and exported in various formats and can thus be used in other applications.

| Components           |            |          |  |
|----------------------|------------|----------|--|
| Component            | Completely | Only Fat |  |
| Coconut oil          | 13         | 13.0     |  |
| Palm oil standard    | 30         | 30.0     |  |
| PK Interestification | 26         | 26.0     |  |
| Rapeseed oil         | 9          | 9.0      |  |
| Sunflower oil        | 22         | 22.0     |  |

| Parameters                    |       |        |        |        |      |
|-------------------------------|-------|--------|--------|--------|------|
| Name                          | Unit  | Min    | Req    | Max    | Calc |
| PI Votator                    |       |        |        |        |      |
| Blending temperature          | °C    | 40.0   | 45.0   | 50.0   |      |
| Temperature pasteurization    | °C    | 70.0   | 75.0   | 80.0   |      |
| Retension time pasteurization | sec   | 10.0   | 15.0   | 20.0   |      |
| Cooling to                    | °C    | 40.0   | 45.0   | 50.0   |      |
| Crystallization temperature   | °C    | -15.0  | -10.0  | -5.0   |      |
| Rotation PIN machine          | l/min | 1500.0 | 1600.0 | 1800.0 |      |
| Production rate               | kg/h  | 1200.0 | 1500.0 | 1800.0 |      |
| Pallet quantity               | kg    |        | 630.0  |        |      |

## Production instructions

## Raw Material Purchase

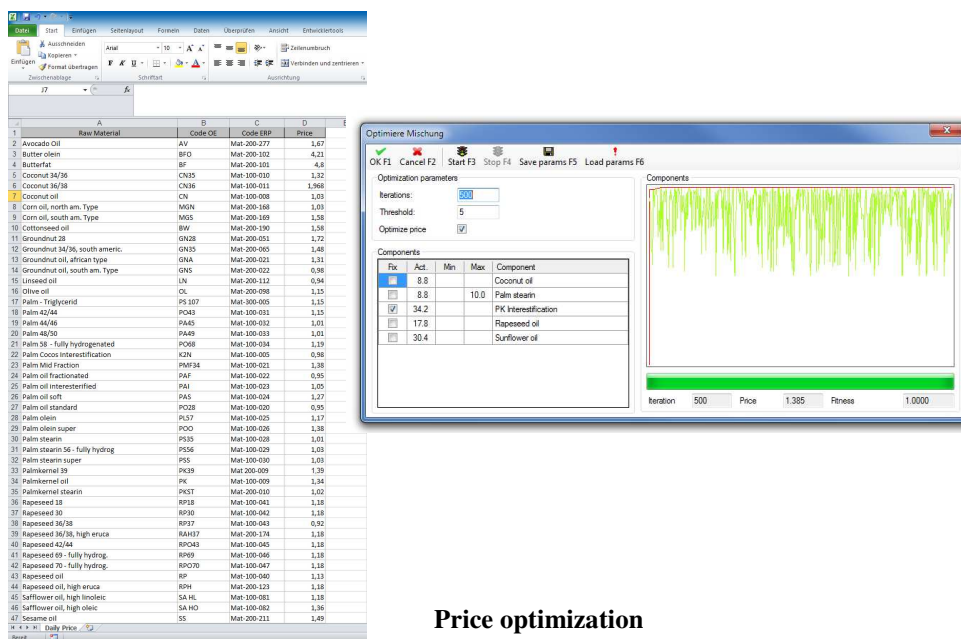
An old merchant's rule says "The profit lies in the purchase". Henry Ford knew that 100 years ago. This rule is still valid today. Because the purchase of raw materials in the fat-processing industry is responsible for a very significant proportion of the expenses. Especially when you consider that the cost of raw materials in this industry is 70% and more of the cost of the product. With the purchase of raw materials, the course is set for the return as well as for the product quality. Profit, liquidity, product quality and ability to deliver are therefore significantly influenced by the purchase of raw materials and the right suppliers.

As simple as that sounds, there are various hurdles in practice: supply chain problems, sometimes extreme price fluctuations on the world market, sustainability as well as official and health requirements that exclude certain raw materials.

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With all these problems, Oil-Expert.net is a great help - through price optimization. Through this optimization, the recipe with the lowest raw material price can be determined while complying with all specifications. Both the proportions of raw materials can be optimized and raw materials can be replaced by other cheaper ones, e.g. part of the rapeseed oil used can be replaced by sheal olein or coconut oil by palm kernel oil. The current raw material prices, which can be imported automatically, are taken into account. The whole optimization takes only a few minutes, ie. the raw material buyer receives the relevant information for the raw material purchase in a very short time.

Of course, the existing commodity contracts, which still have to be fulfilled, also play a major role. But there is always some leeway. Even small price changes in the cent range have a significant effect due to the leverage effect of the large production volumes. Example: A raw material price change of **0.1 ct/kg** results in a saving of **10,000 EUR per year** with a production volume of 10,000 tons per year.



Price optimization

## Human Resource Management

The HR department only has indirect contact with Oil-Expert.net when it comes to new employees. From time to time employees leave the company or retire. As far as product development is concerned, a more or less long transition period is then always required in which the knowledge is transferred.

Oil-Expert.net significantly shortens this training phase for new employees, as the necessary knowledge is largely contained in the Oil-Expert.net database and algorithms and can be used immediately. New employees do not have to start from scratch every time in order to build up their own knowledge base over years of painstaking work. The HR department thus has more time to find a suitable new employee.

However, Oil-Expert.net has another positive effect - it relieves employees of everyday routine tasks such as preparing fat mixtures, carrying out analyses, documenting and evaluating results. The employees are therefore available for more important tasks.

## **Management**

The management of a company is jointly responsible for all departments. In my many years of practice as a management consultant, however, I have repeatedly noticed an important point that is often neglected - the so-called "knowledge hiding", i.e. withholding knowledge acquired during one's professional career - consciously or unconsciously. This not only creates problems, but also has significant financial implications. There are studies that say that the top 500 companies in the US alone suffer about \$30 billion in damage every year.

In principle, two cases can be considered:

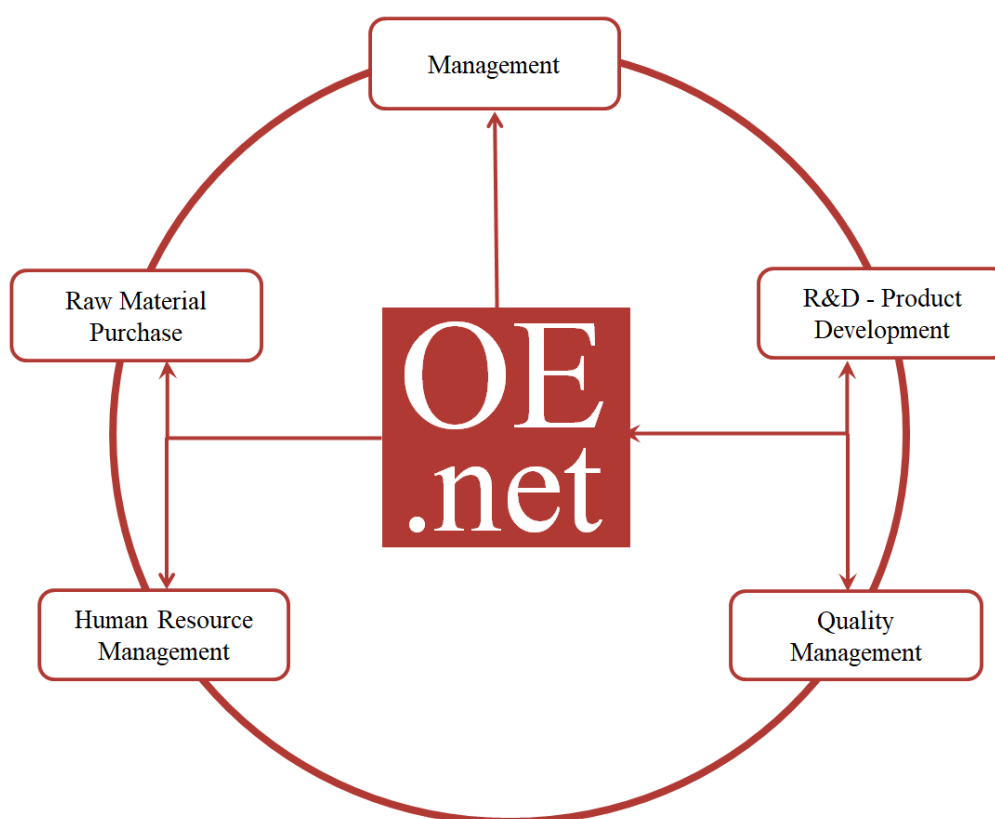
- An employee is afraid of losing his expert status and therefore does not share his knowledge with others. Records are kept secret. They want to make themselves irreplaceable by not sharing their knowledge. Although this situation still exists today, in the age of team players, it is extremely rare.
- It is much more likely that an employee will leave the company either because he has accepted a new job or because he is retiring. The entire knowledge that he has acquired during his working hours is in his "head", so to speak, and then leaves the company with him. A new employee has to learn everything from scratch. Unless the departing employee has left notes that allow the knowledge to be passed on both in terms of volume and comprehensibility, and the transition period with the old employee is long enough. However, this is usually not the case.

Oil-Expert.net cushions the problem of knowledge-hiding for the most part, since the knowledge acquired over years and decades is largely stored in the database and the algorithms of the software, at least if you use the software constantly. The company's internal knowledge is "conserved", so to speak.

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## Conclusion

In every company there are cross-departmental tasks. Oil-Expert.net can be of great help in the technical area, especially in product development, as well as with administrative tasks. The graphic below shows the relationships.



The easy-to-use software Oil-Expert.net shifts a large part of the laboratory work to the PC. It is easy to use, provides quick solutions to all oleochemical questions and helps to save costs. The special know-how for the development of such a complex program is based on the fact that the developers of Oil-Expert.net have all worked in practice as fat chemists. Oil-Expert.net is already being used successfully in leading refineries and margarine factories in Germany, Europe and worldwide.

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**How can you use Oil-Expert.net right now? Very easily.**

- **Future-proof in four steps with Oil-Expert.net:**
- Get a non-binding offer. By the way, next year Oil-Expert.net will be celebrating its 25th anniversary. From January 1st, 2023 we are offering you Oil-Expert.net at a particularly low all-inclusive price, including setup and entering your data. So you can start working with Oil-Expert.net immediately.
- Download, install and test the demo version until the budget is approved.
- Purchase Oil-Expert.net licences.
- Switch from the demo version to the full version and continue working with the data already generated.

## **Demo Version**

We would be happy to provide you with a full-featured demo version. The demo version can be used for three months. If necessary, the term can be extended.

The demo version not only offers all functions of the full version, the data generated with the demo version can still be used with the full version. The database is compatible with both the demo and the full version.

**And it's that quick and easy (time required approx. 15 minutes):**

- Request download link [info@oil-expert.net](mailto:info@oil-expert.net)
- Download the software package from our website
- Install Oil-Expert software
- Start Oil-Expert.net and enter the registration code
- Finished!

The software is supplied with around 40 standard components and some example projects. Using the example projects and the PDF manual, you can quickly and easily learn how to work with Oil-Expert.net. If you have any questions, please do not hesitate to contact us - by email, phone, Skype or any other medium of your choice.

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## **Imprint**

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