

Handelshaus Runkel

Biological based fuels and lubricants
Vegetable oil Technology



INFO 067

History and Development of Handelshaus Runkel **Native vegetable oil technology**

History

Handelshaus Runkel is a family owned company founded by Mr. Jürgen Runkel in 1998. He is an experienced engineer and since 30 years working in renewable energy and alternative environment friendly products. He operates the business as general manager and is senior partner in the organisation. He is one of the most experienced authorities world wide using vegetable-oil as fuel in diesel-engines including automobiles and busses.

His Father, Mr. Gustav Runkel engineer and expert for vegetable-oil extraction was consulting-specialist and site manager worldwide in vegetable oil processing.

Based on these excellent connections, knowledge and know how, Handelshaus Runkel is familiar with all main vegetable oil processing themes.

Mr. Runkel's daughter, Nadine with Diploma in Biochemistry, his son Matthias as Mechanical Engineer and his wife Indra expert in agricultural natural plant growing are as well part of the company management.

The experience in vegetable fuel sector caused the development of certain additives for better ignition, usage without residues by burning and to avoid storage problems. Although viscosity problems under cold conditions and the known acid-problems has been solved by using these Additive-Components.

The approved facts show that this technology using vegetable oils as fuel and engine-lubrication reduces the air pollution drastically. It avoids climate problems and offers a reliable and renewable energy by a CO₂ neutral fuel.

Present Situation

The company offers worldwide various additives for different types and usages of vegetable-oils like DX 52-Serie for improving the combustion, PW 1 for improving the viscosity under cold conditions and PL 1 for the long term storage.

The technology is under the name of "planto-tec-process" on the market. Just to name some of our main clients there are countries like Austria, Switzerland, France, Lithuania and our newest partner Malaysia.

Those countries are operating part of their diesel-engines with this technology, for example using Rapeseed, Soya, Sunflower, Gold of Pleasure as basic oil including the relevant additives.

A lot of further countries are ready to follow this story of success but too often the governments have not already passed the relevant laws to start with this kind of fuel on the market.

Plantanol ® - History

In 2004 the German Government allowed the use of vegetable oils as fuel tax free.

The very same year we started a new company "Plantanol" providing - *ready to use diesel fuel (plantanol-diesel)* - directly to gasoline-stations and end customers.

Ecological and technical tests had been undertaken by private drivers, governmental institutes and the Technical University (TU) of Darmstadt to look to long term use (operation) and exhaust measurement. Tests can be provided on request.

Already within 2 years after establishing and promotion, the company delivered more than 3.6 million litres of plantanol-diesel.

Plantanol-diesel was a well contracted and distributed via 5 private petrol-stations. Surprisingly for us, the tax free situation was revoked from the German Government last year.

Additionally the decrease in price for mineral oil and a tremendous increase of vegetable oils on the world market destroyed the economical advantages of this fuel. Unfortunately due to these reasons we had to deactivate the Plantanol-Company and to stop the delivery of plantanol-diesel for the moment.

For more information please contact our website: www.handelshaus-runkel.de (Plantanol-Video). Feel free to watch the videos explaining the technology. One has been broadcasted by one of the German Public TV-Stations.

Copies of recommendation letters of satisfied clients can be provided on request.

New Structure

Our specialized and well equipped technical laboratory enables us to develop and test fuel components for known and new kinds of vegetable oils. We provide our laboratory-services already to Agricultural Centres private persons or other bio fuel related institutions.

Using Co-operation with chemical partners we are able to deliver almost any required amount of additive components to our customers.

About the usage of vegetable oils as fuel we are working and in contact with Agricultural High Schools in Austria and Switzerland and Agricultural Organisations like Raiffeisen in Germany, to offer our clients the best up-date in this matter.

Professional fuel test laboratories have approved our own laboratory reports and have attested the harmlessness of the pollution, the remarkable reduction of soot-particles and much less toxic influence of the exhaust-particles in this environmental friendly fuel-concept.

Ecological tests made by IWL-Institute show convincible the easy degradability and the non influence to lively cultures by the Plantanol fuel mixture.
The checked out performances like better engine force and better engine torque is leading to less fuel consumption to the users.

In 2006 plantanol-diesel has avoided 4770 tons of CO₂ and millions of tons of soot Emissions caused by a reduction of soot-particles up to 61%.

Handelshaus Runkel is involved in several Plant Oil Organisations and projects in Tunisia, Turkey and Mexico. You are welcome to join us for a partnership.

Summery

The planto-tec-process shows you an easy way and gives you a sustainable possibility for a relative harmless and efficient fuel production without climatic and ecological problems and without high investment. Energy and climate crisis can be avoided specially in using ecological friendly ways of cultivation.

Because of its high energetic density of 9.2 (vegetable-oil) and its efficiency (input-output – relation/balance) the generation of Energy by using the "planto-tec-process" might be one of the most efficient ways to gain fuel.

Another advantage is the by-product of vegetable oil production. The press cake can be used in an efficient way for food like noodles, patties and bread.

This environmental friendly technology gives hope as well as for the reaching of climate goals and sustainable energy supply but also for a friendly and human world for the children of tomorrow.

Memberships

Handelshaus Runkel and/or Plantanol is Member of the **SEO-Group (Sustainable Energy Organisation)** and involved in Projects in Mexico and in the German-Tunisian Organisation for an integrated use of vegetable oils and nature energy.

We are organized in

- the **German Association of vegetable oils** (Bundesverband Pflanzenöle),
- the **Federal Bioenergy Association e.V.** (BBE),
- the **Federal Association of Biogenic fuels e.V.** (BBK) and in
- the **Association of small and medium Business** (BVMW).

The Handelshaus Runkel Team

Handelshaus Runkel . Biogene Treib- und Schmierstoffe . Taunusstr.39 . D-64331 Weiterstadt bei Ffm.
Phone. 0049 - 6150 - 5919300 . Fax: 0049 - 6150 - 5919301 . Email: biotech@handelshaus-runkel.de
Inh. Jürgen Runkel . Sitz: Amtsgericht Darmstadt . USt-Ident-Nr/ VAT-Nr: DE 210 088 914
Internet: www.handelshaus-runkel.de und www.plantanol.de . Brand Mark: plantanol ®
Handelshaus Runkel / INFO 067 – History and Development of Handelshaus Runkel