

Food and Fuel – a sustainable concept for the utilization of pure vegetable oils Successful completion of the project “2ndVegOil” for use in modern tractor engines

Brussels, 20 December 2011.

The results of the EU project "Demonstration of 2nd Generation Vegetable Oil Fuels in Advanced Engines (2ndVegOil)" lead to the conclusion that: The symbiosis of modern engine technology and the concept of sustainable supply of fuels made from pure vegetable oils works perfectly and harmoniously. Furthermore, during the past three years, the compatibility of pure, non-processed vegetable oils and tractor engines researched and confirmed with great success. In the final closing statements presented during the “Representation of the Free State of Bavaria to the European Union” in Brussels on Monday, December 19th, representatives from government and professional circles all praised the innovative technology and the ecological approach of the project.

The project "2ndVegOil", funded under the Seventh European Research Programme provided € 2.2 million, proved that modern exhaust gas treatment systems (DOC/DPF- SCR systems) work well when used with pure vegetable oil fuels. For the best combination of engine performance while meeting current and future emission regulations, both the engines and the fuels made from pure vegetable oils have been idealized.

The agricultural sector is ideally suited as a market: Due to the decentralized structure of the cultivation and oil extraction, there is a very short and thus highly efficient, closed circuit from the fuel production to consumption, because the fuel producer becomes the customer. The economic value remains in the region, while significant contributions to the renewable energy mix are created. Stefanie Dieringer and Prof. Dr. Peter Pickel (Project Manager responsible for the coordinator John Deere ETIC Unit): "We do not have the solution for the planet, but we have the solution for those who feed the planet."

An obstacle to product launch is once more cited the current political conditions. Jo Leinen, Chairman of the Environment Committee of the European Parliament reaffirmed the importance and the need of much stronger political support. Dr. Ruppert Schäfer from the Bavarian Ministry of Agriculture said: "We urgently need the harmonization of agricultural diesel taxation within the EU". He called for more substantial start-up assistance from the EU.

The agricultural sector plays a key role in future oil production because of its local, decentralized structure. Due to the sustainable farming methods used to produce oilseed, conservation of resources, reduced costs and increased biodiversity may be expected. The project delivered evidence that vegetable oil fuels will meet all future requirements for biofuels from the EU Directives on renewable energy and fuel quality (28/2009/EC and 30/2009/EC).

The representative of EC Vice-President Siim Kallas, Laure Chapuis, was presented a document concerning the prestandards for European vegetable oil fuels. Other participants, such as Hans-Josef Fell, MdB; Franz-Xaver Söldner, EC DG MOVE; and Hornek Erwin, a member of the National Council of Austria showed enthusiastic about the project's success.

In addition to John Deere, nine other European project partners, three from Bavaria (regineering - Duft & Innerhofer GbR, Denkendorf; Vereinigte Werkstätten für Pflanzenöltechnologie, Allersberg and Lehrstuhl für Verbrennungskraftmaschinen at TU Munich) worked together with sub-contractors on the technological, economic and

environmental issues. In four countries, 16 tractors contributed around 24,000 work hours in the field in addition to the countless hours of work on motor testing, by among others: the Technology and Research Center Straubing.

Deere & Company is a leading manufacturer of machines for agriculture, forestry and construction as well machinery for lawn and grounds maintenance, based in the United States. The "2ndVegOil" project was coordinated by John Deere in Mannheim by the factory (JDWM) and the John Deere European Technology Innovation Center (ETIC JD) in Kaiserslautern. The ETIC and JD JDWM cooperated with numerous universities and other research facilities within the region of the site at Kaiserslautern and throughout Europe.

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