



## ISIS – FEEDSTOCK FACT SHEET

Although the biodiesel industry has experienced tremendous growth, raw material supplies have served as a natural brake and created a strain on margins for biodiesel producers.

The following summary highlights ISIS as an opportunity to add to the global supply of raw materials for biodiesel production.

ISIS presents a unique opportunity for providing a reliable, inexpensive feedstock for biodiesel or bio-derived synthetic paraffinic kerosene (Bio-SPK) production.

It is a plant well suited for Ukraine, can be planted on marginally productive cropland and requires low inputs (water, fertilizer, pesticide), attributes which enable it to be a low-cost, high margin alternative crop.

ISIS is an inedible crop and the entire crop is used by Sunfuel as an Energy crop. Once seeds are harvested the agricultural residue is harvested and used for bio-pellets. The crop has tremendous potential as a green manure and can be ploughed back in to reduce fertilizer costs.

It can be planted after wheat and on marginal land and does not compete with other crops and will be an excellent rotational crop.

ISIS can be grown on millions of hectares in Ukraine alone and millions more throughout Russia and Europe.

Sunfuel is offering contracts to producers, Sunfuel believes that depending upon the type of extraction technology used, more than 100 million litres of oil could be added to the market in 2010.

Poised for rapid growth: Sunfuel is pioneering the growth of ISIS.

***2000 tons of seed stock available that will allow 100 000ha to be grown next season.***

Sunfuel bio-energy co-operative members receive the latest in agronomic best practices and support as well as hands-on assistance throughout the season. The main task of the co-operative is to ensure that long-term supplies of raw materials or feedstock's are provided efficiently to Sunfuel Integrated Energy production facilities to generate biofuels or biopower.



## **Facts**

- Member of the Brassicaceae family
- Cool season cover crop
- Short season crop – matures in 85 to 100 days
- Can be seeded earlier than other spring crops
- Early planting favours increased yields and higher oil contents
- Non-food crop that is drought/disease resistant
- Typically grown in marginal agricultural lands
- Minimal management required if planted on relatively clean ground
- ISIS requires low input costs and no in-season maintenance.
- Traditionally used to protect and enhance soil
- Normally ploughed under at the end of cool season with no seed collection
- Oil cake will be used by Sunfuel in bio-pellets
- High in oil content: circa 45%

## **Economics**

- Secondary income source; not primary cash crop
- Possibility to get two crops/year in Ukraine plus primary cash crop
- Adds a profitable rotational crop to break the cycle of continuous small grains cropping.
- Utilise land typically rotated to chemical fallow.
- Green manure - ISIS can be ploughed back in to reduce fertilizer costs for the following crop.
- Contracted offtake to Sunfuel

**Using biomass as the feedstock for fuel and renewable energy production opens up new earnings potential for farmers.**

**For further information please contact:**

Terry Booysen MD +38 0966 693558

Tim Bowen CEO +44 7973 668818

email: [info@sunfuel.com](mailto:info@sunfuel.com)

Sunfuel is a specialist CleanTech company with operations in Ukraine and South Africa. Sunfuel focuses on converting low value or waste streams into high value product and is an international provider of various forms of bioenergy. Sunfuel's consultancy operation also plays a significant role in enabling its corporate customers to achieve their corporate and social responsibility programmes. For further information please see [www.sunfuel.com](http://www.sunfuel.com).