

# biofuels

international

January/February 2015  
Issue 1 • Volume 9

## Global outlook 2015

Some of the industry's leading experts provide their thoughts for the year

## Time to play offence

With biofuels firmly at the top of the regulatory agenda, new opportunities have arisen

## South of the border

The Southern Hemisphere's first cellulosic ethanol plant begins production



**Regional focus: biofuels in Brazil**

**Regulations are top priority**

**Pramod Chaudhari, executive chairman, Praj Industries**  
**Headquarters: India**

**The biofuels** industry faces continual challenges. As a newer source of energy, it is usually the victim of misconceptions: 'Lower oil prices mean biofuels will fail to remain competitive.'

Agri feedstock, which contributes significantly to the cost of biofuels production, is witnessing a downward price movement due to higher production levels and lower oil prices. These support the competitiveness of biofuels prices.

Biofuels will continue to see first generation improving in competitiveness. The sector

will also see renewed vigour in the development of second generation biofuels. With a number of demonstration plants planned, the confidence of investors and regulators is on the rise. More time is needed to establish and understand fully the potential opportunities on offer.

2015 will belong to second generation cellulosic ethanol technology. Advanced biofuels have the potential to change the landscape for biofuels, with breakthrough innovations. The potential is immense with openings appearing for a whole new area of renewable chemicals.

Markets in 2015 will also be heavily focused on margins and co-products to improve the viability of first generation plants. Markets will consolidate their efforts with non-profitable ventures

moving out of the sector.

However, the most important factor will be the EU's move on the transport fuel policy which is still awaiting clearance. Once decided, it will give further momentum to second generation biofuels.

In 2015, Praj hopes to see the majority of regulatory and policy issues resolved. It has been a long time since these have kept mandates around the globe – including those in the US, EU, India and South Africa – in the balance.

Transport fuels should be looked upon differently than other forms of renewables. Unlike power and other sources in which it is easier to bring about changes, biofuels require developments in not just the fuel quality related regulations but also detailed infrastructure.



Pramod Chaudhari, Praj Industries

However, ethanol is the easiest amongst them to be adopted and hence needs to be given its fullest support. A long term, pragmatic policy will help overcome many hurdles.

**Tobacco: broadening horizons**

**Peter Majeranowski, co-founder and president of Tyton BioEnergy Systems**  
**Headquarters: US**

**In recent** years, US politicians have promoted diverse technology approaches simultaneously within the national energy strategy. In the array of biofuel feedstocks being developed, studied and promoted, Tyton Biofuels believes energy tobacco can occupy an important position as a choice feedstock with great potential for powering our world in a cleaner, more efficient and more cost-effective way.

Some of its characteristics make tobacco an ideal feedstock for renewable fuels. The plant is not part of the food supply chain, for example, and is naturally high in sugar and oils. It is a hardy plant that grows worldwide in



Peter Majeranowski, Tyton BioEnergy Systems

wide-ranging soil conditions and, importantly, it is low in lignin making it easier to extract the sugar and oil for biofuel production.

Energy tobacco cultivation can contribute substantially to the US's energy independence while reducing carbon usage, and the same holds true for other regions of the world. Farmers' familiarity with the crop reduces barriers to expanded cultivation, and the economics are compelling

at each stage of the value chain. This new biofuels crop is well positioned to take root and expand.

Tyton BioEnergy Systems has developed proprietary energy tobacco and processing technologies that provide for efficient, low-cost production of both ethanol and biodiesel from the same crop. While other cellulosic technologies require costly construction of new biorefineries to produce

cellulosic ethanol, our approach allows existing, first generation biorefineries to utilise energy tobacco sugars with minimal modifications.

The company is working to commercially refine ethanol from energy tobacco grown in Virginia and North Carolina for the first time in a traditional corn-ethanol biorefinery located in Raeford, North Carolina, the heart of the US tobacco-growing region.

**Gaining momentum**

**Tyson Keever, president, SeQuantial Pacific Biodiesel**  
**Headquarters: US**

**Policy uncertainty** has long been one of the biggest hurdles for US biodiesel producers. 2014 was a perfect example of the impact this kind of uncertainty can have on the industry. Following a record-breaking 2013 in which nationwide production