

A number of factors can be considered to help reduce degradation in a bagasse stockpile.



In summary, the project's four main recommendations were to:

1. Increase bagasse bulk density

The adoption or increased use of bagasse moving equipment during construction of the stockpile could typically increase bulk density, resulting in a reduction in maximum untarped stockpile temperature.

2. Increase stockpile height

The depth of bagasse below the stockpile surface affected by degradation is independent of the stockpile height. Increased stockpile height will therefore result in a reduced mean loss of dry matter. The greatest gains are for small untarped stockpiles. Increasing stockpile height has no impact on maximum stockpile temperature.

3. Tarp open stockpiles and improve sealing of tarped stockpiles

Tarpping was found to be the single most effective means of controlling stockpile heating. A stockpile fitted with a reasonably well sealed tarp has predicted maximum temperatures which are below those in the equivalent untarped stockpile.

4. Stockpiling bagasse at elevated moisture contents reduces the risk of spontaneous combustion and dry matter loss

Further experimental proof of this effect is required before this recommendation can be adopted with any confidence.

Biofuels mandate powers sustainable future

The Queensland Parliament has passed legislation requiring fuel sellers to meet targets for the sale of ethanol-blended petrol and bio-based diesel.

The mandate has been established under the *Liquid Fuel Supply (Ethanol and Other Biofuels Mandate) Amendment Act 2015* and is hoped to grow the biofuels and bio-manufacturing sectors.

The Bill includes an initial three per cent ethanol mandate for petrol and a half a per cent bio-based diesel mandate with both due to start on 1 January 2017.

In practical terms, the mandate will require E10 to make up 30 per cent of regular petrol sales in Queensland in 2017.

A joint Deloitte Access Economics/QUT study predicts bio-refining in all its forms could contribute more than \$1.8 billion in gross state product to Queensland and create up to 6640 jobs over the next 20 years.

"New types of bio-based fuels that may be developed in the future will also count toward the mandate, further helping to stimulate investment and innovations in Queensland's biotechnology sector," the State Government said.

Further information about the biofuels mandate is available on the Department of Energy and Water Supply website: www.dews.qld.gov.au.