NSW CANEGROWERS ASSOCIATION

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Sugar Cane Burning in NSW

Sugarcane has been grown in the NSW Northern Rivers for over 150 years. The region currently has some 34,000 hectares of farmland with 500 farming families growing up to 2 million tonnes of sugarcane annually. Our three local sugar mills and refinery employ as many as 1,200 local people, both directly and indirectly.
The cane growing areas in NSW are the furthest south in Australia and the climate is cooler and wetter than in Queensland. Up to 75% of cane in NSW is grown for two years because of the temperate climate. Two-year-old cane is high yielding, has more leaf matter (trash) than 1 year old cane. When these crops are harvested green, they leave a thick blanket of trash on the soil which lowers soil temperatures and inhibits the re-growth of the cane crop. Research has shown that burning cane stores more carbon in the soil than leaving the trash blanket. (Quirk, R 2024)
Most of the NSW cane is burnt prior to harvest to remove all loose and dead leaves to facilitate the harvest operation. Pre-harvest burns are fast, hot fires, with tremendous updraught that carry large carbonaceous ash particles high into the air. These ash particles can be carried a considerable distance. Wind direction, wind velocity and air temperature inversion layers drastically affect smoke and ash management and care is taken to avoid burning during unacceptable times and weather conditions. Farmers monitor wind direction and velocity, along with predicted changes, before fields are burnt.
Burning of cane falls under the provisions of the Rural Fires Act 1997, the Environmental Planning and Assessment Act 1979 and the Right to Farm Act 2019 giving cane farmers the legal right to burn cane. They adhere to strict regulations set by the Rural Fire Service around how and when to burn their cane.

Cane farmers constantly strive to improve their farming practices, changes in management strategies, including changes to the drainage systems, laser levelling of fields and use of lime to lift the pH of the soil and neutralize its acidity, have been implemented with significant positive effects. The reduction of chemical use and changes to its application are driven by the industry along with constant trials of new varieties that require less chemical use. Changes to fertiliser application practices have resulted in over 25% reduction in their use. Sugarcane growing has also been shown to reduce the discharges of acid into the water column by up to 80%. (Webb et al., 2018).

A 360-day study showed that sugarcane was taking 121 tonnes of carbon dioxide (CO2) from the atmosphere per hectare per year. After the growing, harvesting and transport factors were taken into account, the crop was still taking 9 t/ha per year more from the atmosphere than it produced. It also identified the crop as a methane (CH4) sink.(Webb et al., 2018).

Northern Rivers is home to the two biggest renewable energy power stations in Australia. These are owned by Cape Byron Power and are located at the Broadwater and Condong mills. They use the fibre produced by crushing the sugar cane during the harvest season to run the power stations, significantly improving our regional sustainability.

References:
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