SUGARCANE INDUSTRY RESPONSE TO FALL ARMYWORM

Sugar Research Australia

Fall armyworm *(Spodoptera frugiperda)* is now considered established in Australia. It has been detected by the Queensland Department of Agriculture and Fisheries at several sites. Suspect moths at multiple sites including the Burdekin, Bowen and Bundaberg have been confirmed as fall armyworm by DAF entomologists.

(Above left) *Fall armyworm egg mass;*
(Middle) *Large larvae ~30mm;*
(Top right) *Large larva head;*
(Bottom right) *Larvae emerging from eggs.*

Fall armyworm images by James Castner, the University of Florida and Sanbi .org.

Fall armyworm is an invasive pest and its larval (caterpillar) stage feeds on more than 350 plant species, and impacts cultivated grasses such as maize, rice, sorghum, sugarcane and wheat, as well as fruit and vegetable and cotton crops.

Fall armyworm is native to tropical and subtropical regions of the Americas, and since 2016 has spread to Africa, the Indian subcontinent, China and South East Asia.

Adult moths are highly mobile and can fly long distances (up to 200km). This pest is also prolific, reproducing at a rate of several generations per year.

Australia's climate and the production of suitable hosts are favourable for fall armyworm to establish and spread. Australia's environment and native flora may also be impacted.

The Queensland Department of Agriculture and Fisheries (DAF) is continuing to undertake surveillance across key farming areas.

The National Management Group has determined that it is not technically feasible to eradicate fall armyworm from Australia.

HOW IS THE AUSTRALIAN SUGARCANE INDUSTRY RESPONDING TO FALL ARMYWORM?

The Australian sugarcane industry, through the Sugarcane Industry Biosecurity Committee (SIBC), is working closely with governments and a range of groups to manage the threat posed by fall armyworm and respond appropriately. The community, industry and agronomists are encouraged to report any unexpected symptoms in the field by phoning the DAF hotline on **13 25 23.**

CANEGROWERS is the industry representative organisation for fall armyworm. SRA is assisting with specialist knowledge, and is receiving support from productivity services organisations, Australian Sugar

(Top left) Adult female moth - 40mm wing span;
(Top right) Adult male moth - 40mm wing span.

Milling Council, and the Australian Cane Farmers' Association. In addition to the work SRA is doing with DAF, we are also working with other industries as part of the Plant Biosecurity Initiative.

SRA will provide regular technical updates to the industry as further information becomes available.

WHAT COULD FALL ARMYWORM MEAN FOR THE AUSTRALIAN SUGARCANE INDUSTRY?

SRA has been in close contact with overseas sugarcane countries regarding the impact of fall armyworm on sugarcane crops. The extent of this impact will be more fully understood as more information is gathered on the strain(s) and feeding preferences of fall armyworm present in Australia.

The strain that has been detected in Australia is the r-strain (rice-strain), which is believed to favour small grass crops and maize. However, it is also understood to impact sugarcane and more information is required on the potential extent of this impact.

Alternative host plants within the vicinity of sugarcane could also be attractive to this pest, such as other crops, fallow crops and native grasses. This is an area which requires further investigation.

Overseas, younger cane is thought to be more susceptible to significant impacts of fall armyworm. The effect of fall armyworm infestation on Australian sugarcane crops remains unclear.

ARE CHEMICAL OPTIONS BEING CONSIDERED AS PART OF THE RESPONSE?

SRA and industry partners have worked with the Australian Pesticides and Veterinary Medicines Authority (APVMA) on an emergency use permit for Permethrin to control fall armyworm. This permit allows a person to use the product in the manner specified in this permit in Queensland and New South Wales. The APVMA also advises that trichlorfon and chlorpyrifos can also be used against FAW in sugarcane (where the product states use against 'armyworms' but doesn't specify species). These chemicals require careful and considered use, given their environmental risk.

WHAT SHOULD CANE GROWERS DO TO ASSIST?

Growers and service providers are encouraged to be on the lookout for signs of fall armyworm. Biosecurity Queensland is the main point of contact for identification of potential fall armyworm and they should be contacted on **13 25 23**. Good quality photographs of the suspect caterpillar and plant damage, wherever possible, would assist with this identification. Farms will not be placed under quarantine if fall armyworm is reported and found, and early detection will assist in the response.

For further information on fall armyworm and how it is spread along with monitoring and action, visit the Biosecurity Queensland web page about this pest: www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/priority-pest-disease/fall-armyworm