

## **POSITIVE RESULTS IN EFFICACY TEST FOR FLAVOCIDE™ WITH MAJOR CEREAL CROP PEST**

- **Efficacy test shows Flavocide™ controls key insect pest in cereal crops world-wide**
- **Control of Russian wheat aphid demonstrated in laboratory study**
- **Highlights potential of Flavocide™ to control another pest in major global food crops**
- **Cereal crop insecticide market estimated at A\$980m per annum**

Bio-Gene Technology Limited (ASX: BGT, “Bio-Gene” or “the Company”) is pleased to announce the positive results of a successful Flavocide™ laboratory trial against major cereal crop pest the Russian wheat aphid (RWA; *Diuraphis noxia*). An estimated A\$980m is spent on cereal crop insecticides globally\* with aphids a primary target.

The laboratory bioassay using Flavocide™, a liquid formulation containing flavesone (one of the Company’s lead compounds) was performed by cesar, an Australian based contract research organisation. It was designed as a pilot to examine the efficacy of the molecule against RWA, and to suggest future direction of research.

- RWA is native to southern Russia and South West Asia, but is now found in Europe, North America, Africa and Australia.
- This major cereal pest was found in South Australia in 2016 and infestations have since spread into Victoria, NSW and Tasmania.
- The RWA are a major pest in wheat, barley and some grasses, and can cause significant yield losses in cereal crops, at times up to 75%.
- The RWA is distinct from other cereal aphids as it injects salivary toxins in addition to removing nutrients during feeding.

Bio-Gene CEO, Richard Jagger commented: “These early results on the RWA are very encouraging, and, when seen together with recent positive results against cereal pest the red legged earth mite and the major rice pest brown planthopper, demonstrate the potential of Flavocide™ to control multiple pests that impact cereal crops globally, and provides justification for further evaluation against these pest types.

“Wheat is the world’s largest crop, and while populations of RWA have yet to demonstrate resistance to currently used insecticides, the development of resistance management strategies, and the need to provide new tools to help protect our existing products from resistance is vital. The unique mode of action of Flavocide™ could offer the opportunity to contribute to these strategies, and we will explore the potential to test our technology globally to confirm this.”

“The trial confirms that Flavocide™ shows strong promise as an insecticide in cereals,” Dr. Paul Umina, Director of cesar, advised. “Russian wheat aphid is an important pest of cereal crops world-wide, and has only recently become established in Australia.”

Mr. Jagger further added: “Demonstrating our ability to control multiple pests within one crop increases the commercial value and viability of our technology. While this is an early study, it certainly encourages us to investigate this commercial opportunity in more detail and seek interest from potential commercial partners to develop Flavocide™ in this sector”.

The results also highlight that, like other insecticides, Flavocide™ may have differing effects against different pest types which justifies our strategy of evaluating Flavocide™ as widely as possible across pest species both alone and in combination with other insecticides.

\* Kynetec Market Research, 2016

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**About Bio-Gene Technology Ltd**

Bio-Gene is an Australian AgTech development company enabling the next generation of novel insecticides to address the global problems of insecticide resistance and toxicity. Its novel platform technology is based on a naturally occurring class of chemicals known as beta-triketones.

Beta-triketone compounds have demonstrated insecticidal activity (e.g. kill or knock down insects) via a novel mode of action in testing performed to date. This platform may provide multiple potential new solutions for insecticide manufacturers in applications across animal health and crop protection, as well as in public health, and in consumer applications.

The Company's aim is to develop and commercialise a broad portfolio of targeted insect control and management solutions.

**About cesar Pty Ltd**

**cesar** is an independent research organisation committed to a sustainable future by providing world leading science, technology and research into agricultural pest control and wildlife conservation.