

RESULTS OF LATEST ECO-TOXICITY STUDIES REINFORCE ENVIRONMENTAL SAFETY PROFILE OF FLAVOCIDE™

- **New results received from eco-toxicity studies involving rainbow trout and mallard duck**
- **Data shows favourable tox profiles for both non-target aquatic and avian species**
- **Results add to the product environmental safety profile for Flavocide and will form part of the regulatory-enabling suite of studies to support Flavocide commercialisation**

Bio-Gene Technology Limited (ASX:BGT, 'Bio-Gene' or 'the Company'), an agtech development company enabling the next generation of novel insecticides, is pleased to report positive preliminary results from aquatic (Rainbow Trout) and avian (Mallard Duck) eco-toxicity studies. These studies were undertaken with technical grade flavesone, the active constituent contained in Flavocide, and contribute strongly to the data package that will support regulatory approval and commercialisation.

Rainbow Trout aquatic eco-toxicity study

This most recent study was performed on Rainbow Trout (*Oncorhynchus mykiss*) under the Organisation for Economic Co-Operation and Development (OECD) guidelines for fish acute toxicity testing. The results of the study indicated that based on a five-step scale used to classify pesticides into toxicity categories for terrestrial and aquatic organisms, Flavocide was classed as 'practically non-toxic' and therefore falls within the lowest toxicity category for this species.

The study represents a continuation of the recent testing of Flavocide on other non-target species in aquatic ecosystems announced in June 2020 that included data on *Poecilia reticulata* (Guppy), *Daphnia magna* (water flea) and *Pseudokirchneriella subcapitata* (freshwater algae). Overall results showed that no adverse effects were observed in any species from exposure to Flavocide at the doses tested, which included the highest doses able to be achieved within the limitation of water solubility of the compound.

Rainbow Trout is a key target temperate species used to indicate the environmental impact from the use of a pesticide in an aquatic environment. Acute toxicity studies are key to further profiling and understanding the potential hazards posed by products containing flavesone when released into the environment, with particular relevance to outdoor uses such as for mosquito control and crop protection.

Mallard Duck eco-toxicity studies

Mallard Duck (*Anas platyrhynchos*) represents a key aquatic avian species to assess the impact from the introduction of an insecticide to the environment. This study positively builds on the previous study undertaken on a land-based avian species (Japanese Quail) and aims to further profile the effects of Flavocide on different avian species that occupy both terrestrial and aquatic habitats.

These studies compliment the aquatic species studies and are also pivotal to further profiling and understanding the safety profile of products containing flavesone when released into the environment. The studies involved administering Flavocide to birds at a range of dose levels to accurately determine the acute oral toxicity effects.

Based on a five-step scale used to classify pesticides into toxicity categories for terrestrial and aquatic organisms, the trial determined Flavocide technical was 'moderately toxic' and therefore falls into the middle toxicity category for this species. A moderately toxic classification is well within the range of currently registered insecticides and thus a positive outcome in terms of expected non-target impact assessment for registration.

Flavocide ecotoxicity safety profile

These preliminary data on Rainbow Trout and Mallard Duck, together with eco-toxicity data recently obtained on other non-target species, would indicate that Flavocide would likely have minimal impact on non-target species in both aquatic and terrestrial eco-systems. These results continue to provide evidence to support a strong safety profile for products containing Flavocide which may inadvertently encounter non-target species in the environment. Most importantly, the information will also aid product registrations and support promotion of Bio-Gene products to potential commercial partners with an interest in commercialising the company's technology and products.

Commenting on the results of these latest studies, Peter May, Executive Director, R&D for Bio-Gene said: "These results, when added to the previously reported avian studies and the results on other aquatic species, gives us real assurance regarding the safety of Flavocide on non-target species. These studies will play a significant role in our registration submissions and point to the potential to use Flavocide as an insecticide in a range of outdoor applications, including mosquito control and crop protection."

Approved for release by the Chairman of the Board.

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About Bio-Gene Technology Ltd

Bio-Gene is an Australian agtech company enabling the next generation of novel insecticides. Bio-Gene's 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 crop protection and storage, public health, animal health and consumer applications. The Company's aim is to develop and commercialise a broad portfolio of targeted insect control and management solutions.

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