raba
Raspberries & Blackberries Australia

2 March 2016

Committee Secretary
Senate Environment & Communications References Committee
PO Box 1600
Parliament House,
Canberra ACT 2600

Dear Committee Secretary

Re: Inquiry into the risks and opportunities associated with the use of the bumblebee population in Tasmania for commercial purposes

Raspberries & Blackberries Australia Inc (RABA) is writing a letter of support for the use of the bumblebee population in Tasmania for commercial pollination purposes

Background

Raspberries & Blackberries Australia Inc (RABA) is the peak industry body representing the raspberry and blackberry industries (collectively referred to as *Rubus*). While the Rubus Industry is considered one of the smaller among the horticultural industries in Australia, estimated to be worth over $92 million in 2014/15 (Gross value of production), it has been one of the fastest developing industries having increased in value three times over the last four years. It is anticipated production will continue to increase at a similar rate.

Berries have been traditionally grown in southern, temperate areas of Australia as outdoor crops mainly in Victoria and to a lesser extent, Tasmania and where harvesting is from late spring to and early autumn. The introduction of new varieties has now seen the industry expand into non-traditional areas such as northern New South Wales and Southern Queensland where harvest is concentrated from autumn to spring.

Over the last 8-10 years, the industry has evolved into using protected cropping, with plastic tunnels being the most common choice of structure. This provides protection from rain and extreme weather, offers higher productivity and extended harvest seasons.

Pollination and fruit set

While raspberries and blackberries can exhibit some degree of self-pollination, fruit set and fruit quality is greatly enhanced from cross pollination. Honey bees are relied on for this purpose. However, wild populations alone cannot guarantee sufficient bee activity and producers require dedicated bee hives placed around the farm.

In Tasmania, it has been observed that wild bumble bees also act as pollinators of berry crops. It has long been known that bumble bees are more reliable than honey bees as pollinators as they will forage during inclement weather and are less hesitant to forage in crops grown under plastic[1].

Harvesting of fresh berries is carried out by hand picking and fruit pollination and harvesting are continually occurring at the same time. Bumble bees are being less aggressive than honey bees and less likely to sting which is an advantage to pickers' welfare and safety.

Another concern to RABA, is the current dependency of honey bees as pollinators. While we are fortunate in Australia, bee populations around the world are struggling with the decline in honey bee numbers. In New Zealand, the Varroa mite (*Varroa destructor*) has severely reduced wild honey bee populations. Bumble bees are not a carrier or host of Varroa mite. Should Varroa mite enter Australia then we will be faced with the same challenge as in New Zealand in maintaining viable honey bee populations for pollination purposes. In New Zealand, bumble bees are commercially used as pollinators for a number of agricultural and horticultural crops. As a minimal strategy in any contingency plan, bumble bees should be considered as complementary pollinators (but not necessary an alternative) to honey bees.

RABA understands that bumble bees have been present in Tasmania as wild populations for nearly 25 years with no evidence of negative impacts on the environment or on plant (both native and exotic) and other animal species. Consequently, the proposed commercial trial of using bumble bees as pollinators should be permitted to proceed.

Yours sincerely

Jonathan Eccles
Executive Officer

[1] Willmer, P.G., Bataw, A.A.M., & Hughes, J.P. 1994. The superiority of bumblebees to honeybees as pollinators: insect visits to raspberry flowers. *Ecological Entomology* 19:271-284.