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**1. The state of Oregon honey bee stocks in 2017**

The [Sagili Honey Bee Lab at Oregon State University](#) has been conducting a state-wide annual honey bee colony loss surveys since 2010. The survey indicates that 22% of colonies die through the winter months over the last 3 years. While figures for 2017 are not available (the surveys are sent out 1 April and are meant to reflect losses from Oct 1 – March 31) Dr. Sagili feels these losses are likely to be closer to 30% in 2017. This estimate is based on: a) initial reports from beekeepers and b) higher than normal levels of the mite parasite *Varroa destructor* detected in samples from commercial colonies from mid-summer in 2016. The Honey Bee Lab notified the Oregon beekeeping industry of potential problems with mites in September 2016. Cool and wet conditions in February 2017, both in Oregon and in California (where most commercial colonies in the state are hired for the pollination of almonds), will slow efforts by beekeepers to replace these losses.

**2. Challenges for Oregon beekeepers**

Commercial beekeepers in Oregon earn approximately 75% of their income from pollination of agricultural crops. To earn this income, beekeepers move their colonies across multiple crops from March-August. Controlling the parasite *Varroa destructor* is a key challenge during these months, since pollination brings colonies from multiple beekeepers into close proximity, enabling the parasite to spread from colony to colony. Consequently, beekeepers report treating their colonies up to four times per year.

Given the stress of moving colonies and the threat of high parasite levels, August becomes a critical month for beekeepers to rest and rebuild their bees. Unfortunately, the nectar and pollen from floral forage can be limited in August, resulting in sub-optimal colony nutrition and colonies that are unable to recover by the fall (resulting in winter loss). There has been considerable research at Oregon State University's Honey Bee Lab demonstrating the negative effects of poor nutrition on colony performance and survival.

Consequently, is considerable need to improve bee pastures in Oregon by expanding forage available to bees in late-summer.

### **3. HB 2533 and -1 Amendments**

The fees collected by beekeepers under HB 3362 go directly into research into honey bee health at Oregon State University Honey Bee Lab. We agree that nucleus colonies should not be included in the assessment of these fees as they do not constitute a productive colony. The use of nucleus colonies in providing beekeepers options for rebuilding their stocks is outlined in our publication “[Overwintered Honey Bee Nucleus Colonies: Big Solutions in Small Packages](#)” (PNW 682).

### **4. HB 2535**

A key to making managed pollinator stocks more robust (Oregon is one of the few states with four managed bee species) and wild pollinator populations more stable (Oregon has over 500 wild bees species alone, including one of the richest bumble bee fauna in the world) is to expand floral forage resources across the summer months. HB2535 provides an excellent opportunity to explore whether noxious weeds beneficial to pollinators can be replaced with equal or better non-weedy plants. Moreover, it opens an opportunity to “fill in” bloom, ensuring nectar and pollen resources are available at times when forage is in short supply. Also, non-profit initiatives in the Midwest and California have devoted significant investment to helping land managers get pollinator pastures established (e.g., [Project ApisM](#), [Pheasants Forever](#), [The Bee and Butterfly Habitat Fund](#)) and would likely support the pilot outlined in HB2535 with funding. The pilot also has the potential to provide both land-managers and the Legislature with data on how best to eradicate noxious weeds and effectively establish pollinator habitat, as well as cost-estimates for doing the conversion.

Best,



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Pollinator Health Outreach and Education Program