Chapter 12
Securing forage resources for indigenous managed honey bees – thoughts from South Africa

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REASON FOR THE PRACTICE

In South Africa where honey bees (Apis mellifera) are native, they are important for pollination processes that sustain numerous indigenous plants and as managed pollinators of pollination-dependent agricultural crops. Two subspecies, Apis mellifera capensis and Apis mellifera unicolor, are actively managed by beekeepers and provide pollination services to the majority of pollination-dependent crops in the country by moving their colonies to farms during the pollination season (Zwemmers, 2010; Mosimane, 2012). Outside the pollination season, beekeepers undertake practices that provide a honey flow, ensure colony build-up, or trap swarms to replace bees that died or die (Klopper and Candy, 2014).

These practices require a diverse quality and quantity of good forage resources for the honey bees – i.e. flowering plants supplying pollen (proteins) and nectar (carbohydrates). In a study undertaken in South Africa from 2012 to 2014, various forage resources important to beekeepers were investigated (Mathebde, 2014; Mosimane, 2015). It emerged that different regions in the country had a dissimilar reliance on certain forage resources, but forage resources could be roughly divided into indigenous forage (sub-divided into natural and semi-natural habitats and vegetation types) and exotic forage, sub-divided into Apis mellifera spp. (formal forestry and other stands), agricultural crops and urban plantings (gardens, plants, tree lawns, etc.) (Mosimane, 2015). These forage resources are all important for their complementary preferred