Transcription details:

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| Date: | 6-Apr-2016 |
| Input sound file: | Where would we Bee without them? |

Transcription results:

**0:00 (calm music)**

0:10 Hi, I'm Trevor Weatherhead and I'm executive director

0:12 for the Australian Honey Bee Industry Council.

0:14 Today we're at Beryl's farm which is

0:16 on the Cunningham Highway between Brisbane and Warwick.

0:19 (calm music)

0:21 There's about three or four different varieties

0:23 of pumpkins here, this is the Potkins,

0:25 and they're ones that need pollination so they have

0:26 a Jarrahdale beside them.

0:28 (calm music)

0:31 It's estimated that in Australia between $4-6 billion worth

0:35 of crops rely on honey bees for pollination

0:37 and that translates roughly into about one in three

0:40 mouthfuls of food that we eat relies on honey bees

0:43 for pollination.

0:44 (calm music)

0:46 Because the foods that we eat usually originate from Europe,

0:49 we need a European honey bee to be able to pollinate

0:51 these particular plants.

0:53 With these pumpkins behind us, no bees, no pumpkins.

0:55 (calm music)

0:57 The European honey bee was first introduced

0:59 into Australia in 1810 when the Reverend Samuel Marsden

1:03 brought some in from Rio de Janeiro.

1:04 He put them in the governor's garden in Parramatta,

1:07 but they did not survive.

1:09 In 1822 a gentleman called Captain Wallace

1:11 brought some in on the Isabella, brought them to Sydney,

1:14 got them quite successfully established there,

1:16 they were sold at auction, and they were the first

1:18 successful introduction of honey bees here to Australia.

1:21 (calm music)

1:23 We have over 12,000 beekeepers registered in Australia

1:26 and they own just over half a million beehives.

1:29 Some of them are social bees, like Tetragonula,

1:32 they used to be called Trigonas,

1:33 they live in a nest like our European honey bees.

1:36 The other ones are solitary or semi-social,

1:39 a lot of them just live by themselves and you'll see them

1:41 as single bees flying around.

1:44 Within a beehive we have three types of bees.

1:47 You have one queen bee, we have a few drones,

1:50 and the worker bees, they're the ones that make up

1:52 the vast majority.

1:54 In spring, summer when we have a very populous hive

1:57 we can have between 50 and 60,000 bees within that one hive.

2:02 From egg to hatching out is 21 days for a worker,

2:05 for a queen bee it's only 16 days,

2:08 for a drone bee it's longer, it's 24 days.

2:10 (calm music)

2:12 Inside the hives we have with our managed colonies

2:15 we have what we call frames,

2:17 so the queen is confined to that bottom box

2:19 where she lays her eggs and the young bees are produced.

2:22 The top boxes are where the honey is produced.

2:26 The worker bee is the one that goes out and collects

2:27 the nectar and collects the pollen.

2:30 The nectar is collected into a honey sac in his body

2:32 and brought back to the hive.

2:34 The pollen is the male part of the flower and they collect

2:37 the pollen off that and bring that back as well,

2:39 and some of the pollen on their body rubs off

2:41 onto the female flower and pollinates that flower.

2:46 But when you think the bees can come back from

2:48 finding a source of nectar, some flowers and a tree,

2:51 they do a little dance to tell the other bees

2:53 how far away it is and in what direction it is.

2:55 The bees bring it back, put it into the cells,

2:59 it has a very high moisture content,

3:01 I set up a fanning system within the hive

3:03 to concentrate that nectar there into honey,

3:06 and reduce the moisture in that particular honey,

3:09 and then they cap it over with beeswax.

3:11 And so that's what we call our honeycomb.

3:14 The beeswax capping is removed,

3:16 those frames are spun around,

3:17 the honey flicks out onto the side of the container,

3:20 and all you do then is strain it, put it into a container,

3:22 and it's ready to eat.

3:24 (calm music)

3:28 Throughout the world, there is a mite that attacks the bees

3:31 called varroa mite.

3:33 We do not have that in Australia.

3:35 We're the last major beekeeping country in the world

3:38 to not have the varroa mite,

3:39 and it's the viruses that get into the bees,

3:42 and they then will kill the bees.

3:45 The main thing is our quarantine procedures,

3:47 so if you can keep the mite levels down,

3:50 you keep the viruses down and therefore you'll have

3:52 your bees surviving.

3:54 (calm music)