Australian sheep get high and die on toxic weed

May 30 2014, by Glenda Kwek

In this undated photo, purple-flower plant, known as the 'Darling Pea', is seen in the bushfire-scarred area near the town of Coonabarabran, in south-eastern Australia

When Australian farmer Tony Knight first saw a purple-flowering plant growing across the bushfire-scarred terrain where his sheep grazed, his first thought was that it looked like "good stock feed".

But the "pleasant-looking plant" was far from the nutritious food his

livestock needed after their paddocks were razed bare by the fires that swept through the northwest region of New South Wales state last year.

Instead, the native weed known as "the Darling Pea" contained a toxin that affected the sheep's nervous systems, killing hundreds by triggering mental and physical deterioration.

"To start with, they will do quite well when they first get on to it and their condition will pick up," Knight told AFP from his farm near the town of Coonabarabran.

"But once it gets them addicted, it's just a drug—it goes from becoming their best friend to their worst enemy."

Knight said he had lost almost 100 merino sheep out of an 800-strong flock to the noxious pea in recent months, while his sister-in-law Louise, who lives on the farm next door, said 800 of her sheep from a total of 14,000 had died after eating the plant.

A confluence of events enabled the outbreak, with the weed growing in an area where bushfires had wiped out its competition.

The destruction of fences during the bushfires, which devastated 54,000 hectares (133,437 acres) of land, meant it was difficult to rotate the livestock on to non-affected fields as the animals roamed the mountainous terrain, chewing the weed as they went.

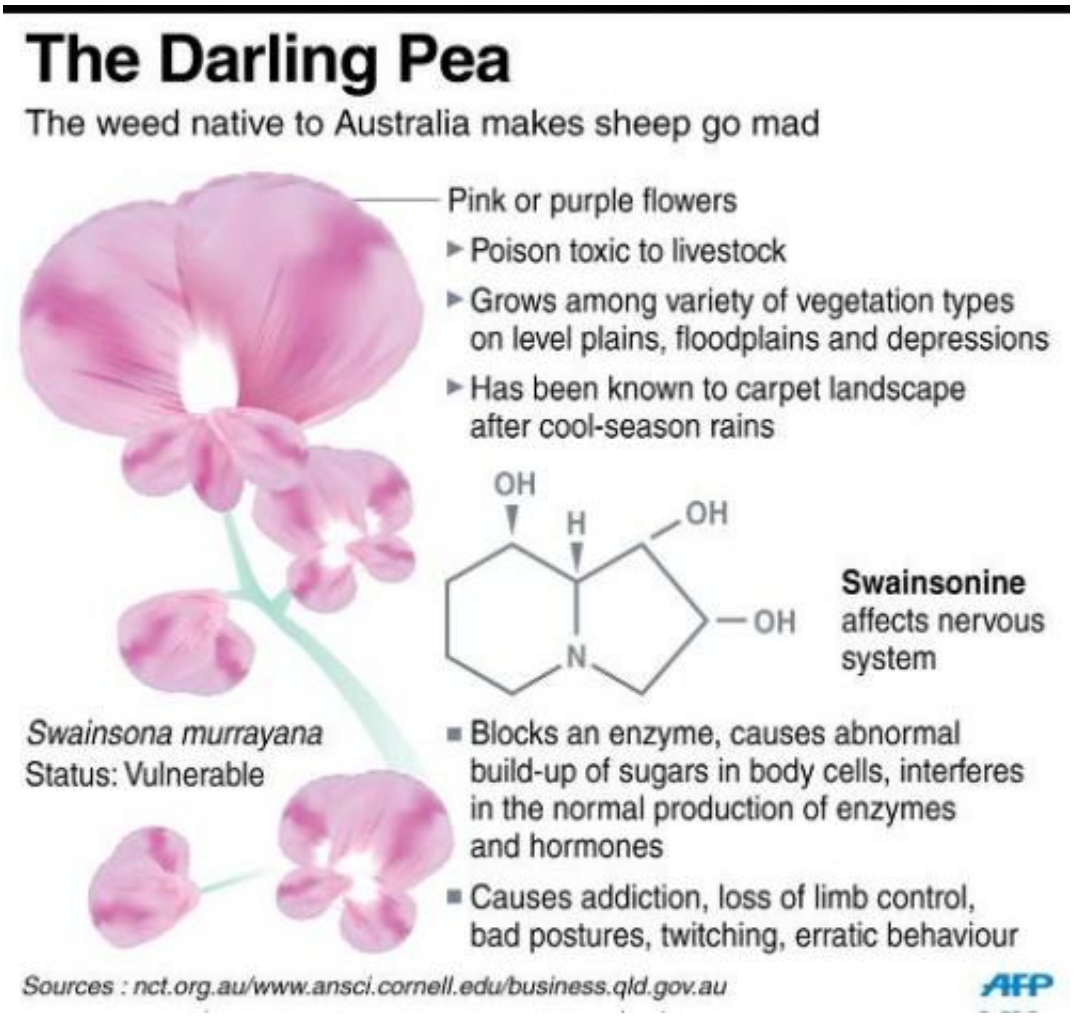
Australia's sheep flock is estimated at 74 million with about 79 percent of them Merino, bred for their high-quality wool which is used in top-of-the-range clothing.

Australia is the world's leading wool producer and exporter, accounting for 24 percent of global production, with annual exports valued at more

than Aus$3 billion. China is its biggest customer.

'Spaced out'

Knight, whose family has lived on the land beside Warrumbungle National Park for generations, said the affected sheep were easy to spot.



Graphic on the 'Darling Pea', a weed native to Australia that killed hundreds of addicted sheep earlier this year

"You will see them in a paddock—usually they are on their own," Knight said.

"They do a lot of star gazing. They do a lot of trotting around with their heads in the air. The dogs get very confused because (the sheep) don't behave like they should."

As the sheep become more affected by the toxin, they lose control of their hind legs.

"They didn't know which planet they were on. They were all spaced out," Knight said of several sheep he had to load on a truck during the shearing season as they could not walk.

The Darling Pea is mostly perennial, which means it has a life-cycle of more than two years.

While the weed regularly occurs in small amounts, rain on pastures stripped of their usual covering by droughts or bushfires can encourage it to sprout from its root stocks and infest the area, said Brian Sindel, an expert in weed science at Australia's University of New England.

Such infestations, which can also affect cows, are uncommon and might occur once every five to 10 years in Australia, usually affecting a small number of livestock.

While some sheep can recover from a short period of grazing the pea, those that are too exposed suffer irreversible degenerative changes to their central nervous system.

In this undated photo, sheep are seen grazing in the bushfire-scarred mountainous terrain near the town of Coonabarabran in south-eastern Australia

"Often weeds are the first species that come back after a bushfire as they have higher seed-bank levels. They have more seeds in a dormant state that are awoken," said Sindel.

"With little other feed available, the livestock are more likely to consume large quantities of the weed, which is of course poisonous, containing the alkaloid swainsonine.

"Some animals appear to develop a liking for the plants and actively select them from the feed available."

Falling over, twitching

Veterinarian Greg McCann said the toxin attacked an enzyme involved in metabolism in the brains of affected animals.

"They lose the ability to judge where their feet are. They become wonky, fall over, appear to be blind, walking into things," McCann told rural newspaper The Land.

"They can assume funny postures, like head bent down or head bent back, but the one thing that was seen in the cases associated in the Coonabarabran area were twitching."

The growth of the weed under trees in bushland over large areas of undulating terrain also made it "impractical or uneconomic" to try eradicating them, Sindel said.

In this undated photo, a farmer is seen riding past the purple-flowering plant, known as the 'Darling Pea', in the bushfire-scarred mountainous terrain near the

town of Coonabarabran in south-eastern Australia

Using weed killers or pestcides to manage the problem is complicated with the pea a native plant and some varieties of it endangered. Permission may be needed from the New South Wales state government under its Native Vegetation Act. Similar acts are also in force elsewhere across Australia.

Knight said so far there appeared to be one solution to weed out most of the pea—by getting the sheep to eat them.

"It's ironic but it seems that the best way to control it is with livestock," he said.

"It's a perennial plant and if something eats it, it will shoot again. As it shoots, if there is something there to eat those shoots, it won't take long before they kill a plant."

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