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THE NATIVE PEAR AS A TOXIC PLANT

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THE Native Pear (Xylomelum angustifolium) has recently been associated with stock losses in the Marchagee district, and a sample of the leaves of sucker shoots, which were submitted for chemical analysis, showed small amounts of prussic acid. This is the first occasion on which the species has come under notice as a toxic plant, although a related species (X pyriforme), which occurs in the Eastern States, has long been known to contain the same toxic principle under certain circumstances.

The losses were experienced on a property in sandplain country three miles east of the siding. On three separate occasions deaths were reported, and each time within 24 hours of the flock being turned into a stubble paddock of over 1,000 acres which had recently been cleared and was carrying the stubble of its second crop. Tests and post-mortem examinations had failed to establish any diseased condition, and a poisonous plant was suspected.

A botanical survey of the area showed a number of seedlings and sucker shoots of native plants, many of which had been freely eaten by the sheep. With two exceptions, these plants were known to be harmless, and some were well known fodder plants. Of the two suspected plants, Corkbush (Gyrostemon ramulosus) was not eaten to any extent, and was not considered to be responsible for the losses. The second plant, Native Pear, occurred mainly as suckers 3 to 4 feet in height, and these had been heavily grazed; moreover, the stomach contents of all the sheep examined after death, showed a proportion of the leaves of this species. Subsequently, samples of the succulent and vigorously growing sucker shoots were submitted to the Director of the Government Chemical Laboratories for analysis, the results of which proved them to contain prussic acid.

In the absence of controlled feeding trials the evidence against Native Pear is not complete, but there is little doubt that this plant was responsible for the losses experienced. As this is the first occasion on which the plant has been suspected of possessing toxic properties, this result is of some interest. However, Native Pear, like all prussic acid producing species, is...
probably of little economic significance as a poisonous plant. There are so many factors which can affect the production of this poison in plant tissues that it is only on rare occasions that the toxicity is developed.

Mature leaves of Native Pear have long been regarded by farmers as a useful feed, and sheep have shown some preference for them in bush country. They appear to be palatable, and on several occasions the lower branches of trees have been denuded of leaves as high as the sheep have been able to reach. It would appear that only the sappy young leaves, of either sucker shoots or seedlings, which develop after clearing operations and fires, are likely to cause trouble, the mature and more fibrous leaves being harmless.

Similarly, the well known Paddy Melon and the common Goosefoots (Chenopodium pumilio and related species), although capable of causing heavy mortality when conditions are favourable for the production of prussic acid, are regarded by many farmers as useful summer fodder plants. While conditions are unfavourable for the production of the toxic principle, the plants will continue to be of value in the summer months, but if conditions suddenly become favourable, losses will probably occur.

Native Pear is a member of the Proteaceae or Banksia family, and is one of the few plants in this very large group which has been proved toxic. It is a small tree of 10 to 12 feet in height, and is usually of a low branching and bushy habit. The flowers are borne in large clusters at the extremities of the branches and are large and showy. They are followed by the woody pear-like fruits which hang on the branches unopened until the tree is killed by fire or destroyed by some other means, when the drying out of the pears liberates the seeds.

The tree is confined to sandplain areas northwards from Moora, and extending eastwards of the Wongan Hills-Mullewa railway line. It occurs abundantly on large tracts of country which will undoubtedly be developed as pastoral holdings in the near future, and although it can not be classed as anything more than a very minor toxic species, the possible results of grazing sheep on sucker or seedling growth of the plant may well be borne in mind.