VII. SOME NOTES ON MIMOSA INVISA MART. AND ITS VAR.INERMIS. IS THE LATTER POISONOUS FOR CATTLE?

In 1909 Mimosa invisa was found first in Malesia by Dr. G. Roepke, then attached to the Central Experiment Station at Salatiga, Central Java, who spotted this American weed introduced on Mt Lawu. He used it for groundcover in some estates and since that time it became very popular and common, up to c. 600 m over Java. It shows a vigorous growth forming dense thickets at the expense of other plants which are suffocated and suppressed. In areas subject to a strong dry season it is limited to moist depressions and streambanks, under everwet climatic conditions it is found in abundance in the same moist places but also in dryland localities (1).

It is also very common in Sumatra and it was especially utilized in the tobacco fields in Deli as a groundcover (and green manure) at the suggestion of the late Dr. de Bussy because of two reasons:

Its vigorous mono-dominant growth and the fact that it is resistant against bacterial slime disease with which so many Indonesian soils are infected made it a most desirable acquisition, because during the fallow period of the Deli tobacco fields it prohibited the multiplication of Bacterium solanacearum on various other Solanums and other plants susceptible to this.

It is also capable, by its vigorous, shade-giving growth to suppress lalang (Imperata); in Malaya its success in this respect on old mining land is mentioned by Burkill (6).

It rapidly spread through Sumatra and West Java and became thoroughly naturalized, especially along river- and stream banks.

This had also a slight disadvantage, as its profuse seed production - each seed being enclosed by a portion of the pod wall falling out of reticulum - led to dominance in places where it was undesirable.

Notably, the seeds become mixed in great quantity with river sand. In Java this is the common kind of sand used to make cement.

Now, it is well known that many leguminous seeds are hard-shelled. This does not mean that their shells are necessarily very thick or very hard, but merely that the envelop(s) of the embryo are impenetrable for water or badly so, prohibiting early, profuse germination. This is also the case with Mimosa invisa. In making cement, therefore, the river sand must be spread out in the sun in a thin layer and interruptedly sprinkled with water; by this measure, through the high temperature the seed coat will burst, and the embryo will germinate through the penetration of the sprinkled water within the seed coat. Sand not treated in this way will make a bad cement, because the seeds, embedded so in the cement do

not loose their power of germination, especially if the plastered surfaces are often heated by the sun and/or are wetted either by liquid water or very damp air. A floor or cemented or plastered wall will in this way show more and more 'pockmarks', that is places where by the very great power of the germinating seed, fragments even to the size of sherds will spring off the walls or floors. This could easily be observed in almost all white-washed plastered walls in houses and buildings at Bogor. I have even observed (2) it in large tiles of hard tennis courts at Bogor; these tiles were made by heavy pressure, not by baking. In the latter case of course the seed is killed and will not cause the fragmentation of the cement. The proper preparation of the sand to make it 'seed-free' is of course costly and contractors forget, therefore, about it. In Central Java, near a very large rice-hulling mill, fine-polished floors for drying paddy and exempting rice-grains, became completely uneven and useless by neglection on the side of the contractor.

Fire is of course also an impetus for germination of Mimosa invisa seed, causing cracks in the seedcoat and can easily be applied for its regeneration. After the Mimosa stand has been cut and dried, a simple ground-fire is sufficient for simultaneous germination by the next rains, as I repeatedly have observed (3).

To return to its large-scale use as a groundcover/green manure, amply described by Heyne (4), its spiny habit was always felt to be a nuisance, as workers cutting it are usually bare-footed and bare-handed.

It was thus desirable to find an unarmed variety and a planter, Mr. A.S.Bolt, succeeded after a long search to find an unarmed plant on his estate "Nieuw Gebangan", near Weleri (West of Semarang, North Central Java), which appeared to breed true and could hold its own very well against its armed competitors. It was officially described as var. inermis Adelb. (5).

As fodder Heyne mentioned that oxes feed freely on the armed M. invisa, notwithstanding the prickles, adding not to be certain that it will do no harm if eaten in large quantities.

Recently Father J.J.Loeters, of the Catholic Mission in Endeh (Flores I., Lesser Sunda Islands) wrote, that he tried to make M. invisa var. inermis more popular as a useful plant. However, pigs fed with it died within 24 hours! They liked it as fodder! Even larger animals fed with dried hay of it died. A phytochemical analysis seems to be urgent.

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VARIA

In our time, part of humanity has settled in an extremely inhospitable land, shouting loudly: Here we are! In the promised land!

This promised land is very dusty. Those who have settled there pretend to have the universe on a balance and all human wisdom in a pair of compasses. Very indignantly they start when one doubts the possibility to fathom for ever all that exists in terms of matter, force, mathesis, Darwinism. These people have achieved great things - but there is something very disagreeable in the pride by which they turn to anyone who means to proceed in a different direction - and the tenacity of their urging to have us swallow their stuff. Their doctrine - it might well be termed a college-gospel - does not wish to hear of ghosts, nor of religion, nor of metaphysics. You have 2 x 2 = 4, see there the key to the world. Integrals and differentials, physics and psychology, it is all variation on this theme. Belief is not necessary - except just a moment at the beginning, in the concept of matter, but you are over it soon - and the universe is yours!

F.W.van Eeden (Dutch author, idealist, playwright, psychiatrist): Hypnotism and Marvels (1886).