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Pruatjan (*Pimpinella pruatjan* Molk.): The rooted herbal medicine of Indonesia for aphrodisiac properties

OtiH Rostiana

Indonesian Agency for Agricultural Research and Development, Indonesia

Pimpinella pruatjan is one of indigenous species of Indonesia. In Indonesian folklore medicine, this endemic species is well known as herbal medicine for aphrodisiac properties. The annual-rooted plant, which grown well at high latitude, has become an endangered species due to land conversion and limited of cultivation area. A higher economic value of the competitor crops such as potato and others vegetable crops has also made this plant exhausted from its natural habitat. In order to broaden the cultivation area of pruatjan, explored genetic material of pruatjan from its natural habitat, at Dieng Plateau (2000 m asl.), Wonosobo, Central Java, were transplanted at the lower latitude. The progeny from six population of selected plant materials were evaluated for their agronomical and chemical compound properties, at Cipanas highland (1500 m asl.), West Java. The results confirm that, these endemic species was adaptable to newly area of cultivation, at a lower latitude. Agronomical characters, quality and active compound of leaf and root of those transplanted population were normally observed. Phytochemical analyses based on hexan and/ethanol extraction method on pruatjan root, alkaloid, glycoside, coumarin, triterpenoid-steroid and saponin were detected. Meanwhile based on the same method, except all those above-chemical compound, flavonoid and tannin have also been detected from pruatjan leaf. Further continuing research has resulted in newly progeny-line selected for lower latitude cultivation. The selected genotype was well-adaptable to Gunung Putri agroecosystem, in Cipanas Highland, West Java with the latitude of 1500 m asl. The genotype having root yield about 9.27 g/plant, herb of 17.17 g/plant and totally yielded 26.43 g/plant. These genotype-herb quality was also found to be higher than that of population grown at its naturally habitat (2000 m asl.), with leaf-sitosterol content of 0.69% and 1.10% (root); stigmasterol of 0.84% (leaf) and 1.09% (root); bergapten of 0.23% (leaf) and 0.63% (root); saponin of 0.86% (leaf) and 0.90% (root); water-soluble extract of 28.67% (leaf) and 28.36% (root); ethanol-soluble extract of 11.86% (leaf) and 10.06% (root). Aphrodisiac properties which were empirically believed by people especially who lives in Dieng Plateau of Central Java, has also been scientifically approved. Preliminary research on rats shown that pruatjan containing metabolite was capable to enhance or restore male sexual potencies.

otihrostiana@yahoo.com