

Patima Likitthammanit 2006: Development of Dog's Shampoo Added Stemona Root Extract. Master of Science (Agro-Industrial Product Development), Major Field: Agro-Industrial Product Development, Development of Product Development. Thesis Advisor: Associate Professor Vichai Haruthaithanasan, M.Sc. 130 pages. ISBN 974-16-2434-4

According to the consumer survey of dog's shampoo, the result showed that consumers were interested in buying bathing shampoo which contained active chemicals that commonly used to kill and protect the skin parasites. Moreover, most active chemicals are imported so they are very expensive. Therefore, the natural extracts from endemic plants is more suitable to avoid some troubles which cause skin diseases and may affect of toxicant to human, dog and environment. Stemona root is called "Non taai yak" was endemic plants which contains active alkaloid chemical in root that insecticide was qualified. The aim of this research was to develop dog's shampoo mixed with stemona root extract. From the extraction process it was found that the optimum process was obtained by using 50% concentration of ethanol, 48 hrs. maceration time and 1:12 plant-ethanol ratio and were obtained maximum yield at 68%. These stemona extract were tested *in vitro* for the mortality of tick and found that 10% w/w formula gave the best action. From the study of development of dog's shampoo added extract from stemona root, the optimum formulation of shampoo consisted of Sodium laureth sulfate 40%, Coconut fatty acid diethadamide 3%, Cocamidopropyl Betaine 5%, Polyethylene Glycol 40 2%, Cocamidopropyl hydroxysulfaine 2%, Propylene glycol 1%, Lanolin 1%, Citric acid 0.7%, NaCl 1.7% and Stemona root extract 10%. The properties of dog's shampoo including viscosity, pH and foam were 2,584 cP, 7.2 and 64 ml. Respectively. Dog's shampoo was light yellow with L*a*b* value of 59.6, -0.42 and 9.31 and homogeneous. The total plate count of bacteria and yeast/mold were less than 10 colony/g. The shelf-life product could storage at least 2 months at 4°C and room temperature. The test with a hundred of consumers showed that 93% of consumers accepted the product and the overall liking was like moderately.

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