

Short Communication

USE OF *ELEUSINE INDICA* (L.) GAERTN. (*KECHILA GHAS*) AS AN ANTIPYRETIC MEDICINE OF HERBIVORES

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ABSTRACT: In Murshidabad district of West Bengal state, India, the traditionally animal rearing people feed parts of *Kechila ghas* as an antipyretic medicine to their herbivorous animals. The plant is identified as *Eleusine indica* (L.) Gaertn. of the family Poaceae. After collection from the soil, the plants are washed and the whole root along with 1-2 centimeter of stems are cut and fed directly at fresh, succulent stage to the ailing animals for that purpose.

Key words: *Eleusine indica*, Antipyretic, Herbivores.

Ethno medicines are extensively used in India and elsewhere due to their low cost, easy accessibility and perceived fewer side effects (Rathee *et al.* 2006). Present day farm animals are the successors of their free living ancestors. As most of the modern farm animals are herbivorous, their body system is accustomed with utilization of nutrients available after digestion of plant materials. Concept of use of added food items and synthetic chemicals among farm animals is need based and to incur less expenditure through feeding, breeding and management (Pattanayak *et al.* 2013). As a part of management, the health care systems of domesticated animals are developed with the available tools of healthcare of human. In many cases, that is not properly effective due to the physiological and other systemic differences among man and different species of animals, but we adhere with our concept (Pattanayak *et al.* 2013). Generally, the ethnic and other rural people often traditionally use the plants in their crude, succulent and fresh form in medical purposes (Pattanayak *et al.* 2016).

The traditionally animal rearing people of Murshidabad district of West Bengal state of India (locally called as *Ghosh*s) use many plants or plant parts as medicine of their ailing animals. They use parts of *Kechila Ghas* as a medicine to cure fever of their domestic animals.

After critical study, *Kechila ghas* is identified as *Eleusine indica* (L.) Gaertn. [Family: Poaceae]. In English, it is called as 'Crowfoot grass' and in Hindi, it is known as 'Jangali Marua'. It is a common grass species growing in that area as well as other parts of the state. The plant specimen (SP 16) was collected from Village - Romipur, Block – Raninagar 1, District – Murshidabad of West Bengal, India (Fig. 1).

Procedure of use

Eleusine indica is used as an antipyretic agent for all the herbivorous domestic species of animals.

The plant is taken out with some soil with the help of some sharp object. The adhered soil is washed out with clean water and is dried in air.

A portion (1-2 centimeter) of the stem along with the whole root is taken out, leaving the leaves of the plant and is used directly as medicine.

Quantity used

1. For small animals (e.g. goat, sheep etc.): Approximately 10 grams of plant material is added with a little amount of molasses or fed directly to animals with body weight between 25-40 kilogram. For smaller sized animals, the quantity is reduced accordingly. The medicine is given 3-4 times daily until cure.

2. For large animals (e.g. cattle, buffaloes, etc.) :

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Fig. 1. *Eleusine indica* (L.) Gaertn. in its natural habitat.

Approximately 80-100 grams of plant material is added with a little amount of molasses or fed directly to animals with body weight above 200 kilogram. For smaller sized animals, the quantity is reduced accordingly. The medicine is given 3-4 times daily until cure.

Previous reports

It is used as sudorific, febrifuge and also used in liver complaints (Chopra *et al.* 1986). Fresh root is fed to treat gonorrhoea by tribal people (Chowdhury *et al.* 2014). Leaves are used as diuretic after boiling in Philippines (Gruyal *et al.* 2014). The plant is long been prescribed to relieve dysuria, fever, inflammatory, jaundice, centipede and scorpion poisoning by being soaked in alcohol in Thailand (Boonyaprapashara and Chokchaichareonporn 2000). Whole plant decoction is used as anti-inflammatory agent in Nigeria (Obute 2007). Decoction used orally for traumatic injury, rheumatism, infantile indigestion in China (Hong *et al.* 2015).

As per the previous studies, the grass contain dry matter 35.8%, crude protein 12.4% (Regmi *et al.* 2004). The solvent extracted part of the grass showed *in vitro* antioxidant and antimicrobial properties (Al-Zubairi *et al.* 2011). Elemental analysis yielded Calcium, Potassium, Magnesium, Phosphorus, Copper, Iron, Manganese, Molybdenum and Zinc (Babu and Savithramma 2014).

The practice of direct feeding of parts of *Eleusine indica* to the herbivorous domesticated animals as a medicine of fever may be made widespread, if proved actually useful. Scientific study related to validation, dose, toxicity etc. are required for that purpose. As it is not a synthetic medicine, issues like food chain derived health hazards may not arise. Such medicinal treatment of animals may be considered as eco-friendly and a part of organic farming. Availability of succulent, fresh plant is not a problem, as the plant is generally considered an adventitious species, is native in the tropics and subtropical regions (Haber and Semaan 2007).

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