

A Review:

Agriculture plants used against livestock diseases

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SUMMARY

Ethnomedicinal survey exhibits a number of valuable data on indigenous medicinal plants, which are cultivated for agriculture purpose. Many agriculture plants and their products have been used traditionally for the treatment of various livestock diseases. These plants are used not only for food but also employed to cure different ailments of livestock. The medicinal uses of these plants may help veterinarians, medicos and agriculture/bio scientists or researchers in discovering new drugs against various diseases of human and animals. Some of the agriculture plants possessing useful properties against various diseases of livestock are: *Allium cepa*, *Allium sativum*, *Annona squamosa*, *Brassica campestris* and *B. nigra*, *B. oleracea* var. *botrytis*, *Cajanus cajan*, *Capsicum annum*, *Carica papaya*, *Cicer arietinum*, *Citrus limon*, *Curcuma longa*, *Daucus sativa*, *Elephantopus scaber*, *Lens culinaris*, *Lycopersicon esculentum*, *Momordica charantia*, *Oryza sativa*, *Picrorhiza kurroa*, *Psidium guajava*, *Raphanus sativus*, *Sesamum orientale*, *Solanum melongena*, *Solanum tuberosum*, *Spinacia oleracea*, *Trachyspermum ammi*, *Trigonella foenumgraecum*, *Triticum aestivum*, *Zea mays* and *Zingiber officinale*.

Key words : Agriculture plants, Livestock diseases.

There are about 400 families of the flowering plants in the world, at least 315 are represented by India (Sharma, 2003). Considerable works have been done on ethnomedicinal plants of India. But very little scientific attention has been paid to plants and other natural products, which are specifically used in the treatment of livestock diseases (Tiwari and Pande, 2006). Various agriculture plants and their products have been used in veterinary practices since times immemorial. The dependence of rural mass on the plant-based medicines for curing animals is mainly because of the limited access to the modern (allopathic) medicine system, cheaper and easy availability, and the simplicity of their applications. The herbal drugs also do not possess toxicity or have very less side effects (Jadeja *et al.*, 2006).

Ethnomedicinal survey exhibits a number of valuable data on indigenous medicinal plants, which are cultivated for agriculture purpose. Thus, the present review paper signifies the efficacy of some agriculture plants used against various diseases of livestock. Cattle, buffalo, sheep and goat are the main livestock and domestic animals. The attempt has also been made to improve the knowledge among rural people and farmers for documentation of ethnoveterinary practices.

Some agriculture plants used against livestock diseases:

The data on 30 agriculture-medicinal plants have been collected from various papers, journals and books, and

enumerated below. In general, the main active components, curative uses and some important biological activities of these plants have been mentioned by many authors (Chopra *et al.*, 2002; C.S.I.R., 1986; Kaushik and Dhiman, 1999; Nadkarni, 1954; Sharma, 2003). However, some of these plants have also been reported by some other investigators to be used against specific veterinary diseases as cited under these plants.

***Allium cepa* Linn. (Piyaz):**

Bulb contains amino acids, vitamins (C, E, folic acid), quercetin flavonoid and allicin. Boiled bulb is given after parturition to clean stomach (Jadeja *et al.*, 2006). The bulbs are also given in flatulence, indigestion, cough, cold, blisters, boils, swelling, pain and fever, and have analgesic, antipyretic, antiinflammatory, diuretic, antidiabetic, anticholesterol, anticancer and bactericidal activities.

***Allium sativum* Linn. (Lasun):**

Bulb contains allicin, allin and amino acids. The bulbs are given in skin and lung disorders, flatulence, colic and dyspepsia, and have antidiabetic activity.

***Annona squamosa* Linn. (Sitaphal):**

Plant contains annonaine, higenamine and amino acids. Leaves and seeds are externally applied in wounds, boils, burns and swelling (Jadeja *et al.*, 2006). The seeds are also used for killing external parasites (lice).

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