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EFFECT OF MIMOSINE FROM SUBABOOL ON GROWTH PERFORMANCE IN GOATS HEALTH

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ABSTRACT : To quantify the detrimental effect from subabool *(Leuceana leucocephala)* on goat health, three plant portions *viz*. leaves, barks and twigs from the three locations *viz*. Makhdoom (Mathura, U.P.), Avikanagar (Tonk, Rajasthan) and Chakarngar (Etawah, U.P.) were collected during three season viz. summer, rains and winter and offered to male Barbari goats of three age groups *viz*. 3-6 month (5.5 kg), 6-9 month (9.5 kg), 9-12 month (13.5 kg) on three replacement ratios *viz*. 100:00, 75:25 and 50:50 to find out voluntary intake and growth performance. The content of mimosine in various feeds was estimated. The data recorded were statistically analyzed using 3 x 3 x 3 factorial design. The salient findings included that the twigs of the plant contained high concentration of mimosine. The content of this anti-metabolite in plant was also high during rains. Feed with 100:00 replacement ratio recorded high content of mimosine whereas in the material collected from various locations it did not differ significantly. Voluntary intake in experimental animals was lowest on twigs than that on leaves and barks and 100:00 replacement ratio than that on 75:25 and 50:50 ratios, whereas other factors *viz*. seasons, locations and age groups of the experimental animals could not differ the same. Weight loss in goats was highest during rains amongst different seasons; locations and age groups of the goats could not differ in this respect. It can be concluded on the basis of this investigation that subabool should not be offered to the goats at high concentration.

Key Words : Anti-nutritional factors, goats, growth, intake, *Leuceana leucocephala*, mimosine.