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## **FLUORIDE TOXICOSIS IN BOVINES AND FLOCKS OF DESERT ENVIRONMENT**

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Susceptibility to fluoride (F) toxicosis in the form of osteo-dental fluorosis was observed in 260 bovines (64 buffaloes and 196 cattle) and 405 flocks (213 goats and 192 sheep) living in areas of Sirohi district of Rajasthan, India where desert environment persists. Fluoride concentration in drinking water sources (ground water) of these villages varies between 3- 12 ppm. Except fluoridated ground water there are no other sources of F intoxication in animals. In this observational survey bovines were found to be more susceptible to fluoride toxicosis and showed relatively high prevalence of dental and skeletal fluorosis (59.23% and 31.53%, respectively) as compared to their flocks (7.40% and 1.72%). In bovines both forms of fluorosis were found to be more severe as compared to flocks. Severity of dental fluorosis was characterised with deep brown- blackish staining, irregular wearing of teeth and recession and swelling of gingiva. 31.53% (82/260) bovines who had skeletal fluorosis also revealed intermittent lameness, wasting of body muscles and hyper periosteal exostoses in the mandibles, ribs, metacarpus and metatarsus regions as pathognomic signs of severe form of dental fluorosis. Although these signs were also seen in 1.72% (7/405) flocks but were in mild form. However, the susceptibility to F toxicosis or the prevalence and severity of osteo-dental fluorosis in these animals varied greatly. Possible reasons for the causes of such variation in F toxicosis in these animals living in the same environment are discussed.