

# QUALITY, YIELD POTENTIALS AND CORRELATION STUDIES OF INDIGENOUS AND EXOTIC ALFALFA CULTIVARS

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## ABSTRACT

A field study on alfalfa cultivars conducted during 1988-90 depicted that cv. Type 8 x 9 and Sundor proved to be superior to cv. Condor; Pierce and Pike for green fodder and dry matter yields, % protein and % ether extract. Both the cv. were found lowest in % crude fibre. % Ash remained un-affected. All the agronomic traits except stem thickness showed strong positive association with dry matter yield. Dry matter yield gave sig. positive relationship with % protein, % ether extract but, negative with % crude fibre. All the traits except % crude fibre regressed positively on dry matter per plant.

## INTRODUCTION

Alfalfa (*Medicago sativa* L.) holds unique position among rabi fodders. It provides higher tonnage of nutri-tious green fodder through number of cuttings round the year. Being rich in total digestable nutrients (TDN) and protein, it is labelled as "queen of fodders". Keeping in view its immense importance, the replacement of old cultivars with new ones is imperative to boost up the fodder yield and meliorate the quality.

Dancik (1978), Varga *et al.*, (1979), Hesterman *et al.*, (1981) and Tan and Tan (1981) found significant differences between cultivars for most characters, green fodder and dry matter yields of alfalfa. Range of 20.5-24.7%, 17.52-22.27%, 19-23% and 20.43-21.27% of protein content was observed by Ocokoljic *et al.*, (1979), Zubal (1975), Hill and Barnes (1977) and Varga *et al.*, (1979), respectively.

No quality parameter was strongly correlated with yield (Hill and Jung, 1975 and Hill and Barnes, 1977). Dancik (1978) reported that yield was positively correlated with plant height and number of stem per m<sup>2</sup>. Goplan and Ramaswamy (1979) observed that fresh fodder per plant of *C. ciliaris* was positively correlated with tillers per plant leaf length and breath, internode thickness and plant height. Hasterman *et al.*, (1981) opined that