

# Food value of some populations of Algerian annual alfalfa

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## 1 ABSTRACT

Fodder grown in Algeria occupies 20% of the total UAA (agricultural area use) of the country. They are dominated by so-called "dry" fodder. The conversion of northern fallow land and steppe to self-regenerating legumes in an annual Cereal / *Medicago* rotation system may increase it. At the early flowering stage, the results indicate that the mineral content of the annual alfalfa is consistent; it varies from 9 to 14% of the DM (Dry matter). The species *M. truncatula* (Tr238) has the highest value (18%), which decreases the organic matter content. The nitrogen content is high with a maximum of 29% *M. ciliaris*(S5) and a minimum of 20% *M. intertexta* (I107): the *M. ciliaris* species is the best provided in MAT (total nitrogenous matter) with an average of 27% against *M. intertexta*: 23 %. The highest NDF (neutral detergent fibre) content, 46% of the MS (dry matter) is recruited among *M. intertexta* (I253) quite logically, ADF (acid detergent fibre) and ADL (lignin) follow with 21 and 9% as respective maximas for all populations. However, on average, the ADL content is only 5% with a minimum of 2.6% for C2 *M. ciliaris*. It is interesting to note, the positive sign of the correlation between factors N. of Rods / m<sup>2</sup> and ADF: the amount of DM (thus indirectly lignin) increases in parallel with the age of the plant, as NDF and ADF. Considered first by test, the recorded digestibility values are equal to or greater than 70%: 75; 73; 74; 79 (respectively for tests 1 to 4) and on average, 75%. The average digestibility per species is 77; 73 and 75% for *M. ciliaris*, *M. truncatula* and *M. intertexta*. Variations between populations and species are low: 3.4 and 3.1% respectively. The 20 or so populations of local annual alfalfa studied showed a great genetic variability of the studied parameters, which constitutes an important genetic capital in which the breeder could draw at leisure.

Abbreviations: MAT, total nitrogenous matter ;ADF, acid detergent fibre; DM, dry matter; UAA, agricultural area use;; NDF, neutral detergent fibre ; N. of Rods / m<sup>2</sup> ,Number of Rods / m<sup>2</sup>.