

Significance of fallow on rangelands rehabilitation in an arid area from Central Algeria

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ABSTRACT:

The crops introduction under pivot in arid zones has induced changes in the soil and natural vegetation. After fallowing or abandoning of these plots, a new spontaneous flora generally originating settles. Our work consists of studying the importance of fallowing on rangeland rehabilitation in the Ghardaia region (Algerian Center). For this, we selected 3 stations at different ages of abandonment in the region of Hassi El Fehal (Ghardaia) potentially producing region cereals: a reference station has never been cultivated and two other stations abandoned respectively from one and 04 years after having been exploited for five years in a cereal under pivot. Sampling allowed us to inventory 25 species distributed over 16 botanical families. Correspondence factor analysis applied to three stations revealed that the recently abandoned station represents a great diversity of flora (17 species) relative to the other two stations (11 each species), which is probably related to depletion of the seed bank thus reducing following species. It is noted that the species *Linaria aegyptiaca* exist after four unplanted years, and two species: *Colocynthis vulgaris* and *Pergularia tomentosa* appear after fallow; This probably indicates a return to the original state of rangelands (indicator species of the return to the natural environment). But *Fagonia microphylla*, classified as a species of Hamada (rangelands) was not influenced by neither the cultivation nor the fallow (abandoned).

Keywords:

Fallow, Rangelands, Vegetation, Arid area, Central Algeria.