

A comparative study of life traits of alien versus native weeds of the crops of Oranie (North-West Algeria)

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The analysis of weed flora composition in the crops of Oranie (North-West Algeria) highlighted the presence of 30 alien species which are dominated by Asteraceae, Amaranthaceae and Solanaceae. Around 73% of these species were native to the American continent and 67% came from tropical regions. The most representative life traits in alien weed species compared to native ones were: spring to summer germination (73% vs 15%), non specialized dissemination strategies, but related with anthropic activities (70% vs 46%), strict to preferential self-pollination (73% vs 39%), and the high proportion of C4 species (23% vs 3%). The agricultural biotopes mainly affected were the irrigated summer crops with short rotation and important amount of nitrogen fertilization. The success of alien species seemed to result from suitability between environmental conditions of a newly created habitat (summer temperature, humidity, important nitrogen rate, frequent perturbations, short rotations, availability of ecological niches) and from species traits (annual type, summer germination, photosynthetic pathway in C4, speirochory).

Keywords: Agrosystems; Field surveys; Phylogeny; Biotypes; Speirochory



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