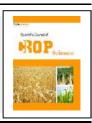


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Original article

Evaluation of rice dominance and its impact on crop diversity in North of Iran

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ABSTRACT

Biodiversity and agriculture are related together and can influence each other. Sustainable farming is resulted from this relation. Crop variation can cause different responses against heat, cold, drought, pests and diseases. Needing to crops is more than before that its cause is world population growth and climate change is the biggest challenge in front of it and with increasing biodiversity can be dealt with it. The present study is done to evaluate the rice dominance and its effect on crop diversity in Guilan province for eight cities separately. The study is done using land area and species richness to getting diversity indexes, dominancy and evenness. The relevant indexes were calculated two times with considering area under rice and without it. Results indicated that 17 species of crops were cultivated and most of them belong to the Leguminoseae but most cultivation area consists of Poaceae (96%). Rice has the most area (about 90%) as the dominant species in Guilan province. Shanon, Simpson and Evenness were measured separately with and without rice presence and resulted as follows: with rice Shannon was 0.68, Simpson 0.16 and evenness 0.07; without rice 2.84, 0.8 and 0.32 respectively. In conclusion, dominant crop in Guilan province is rice and it affected on the crop diversity and makes it vulnerable.

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