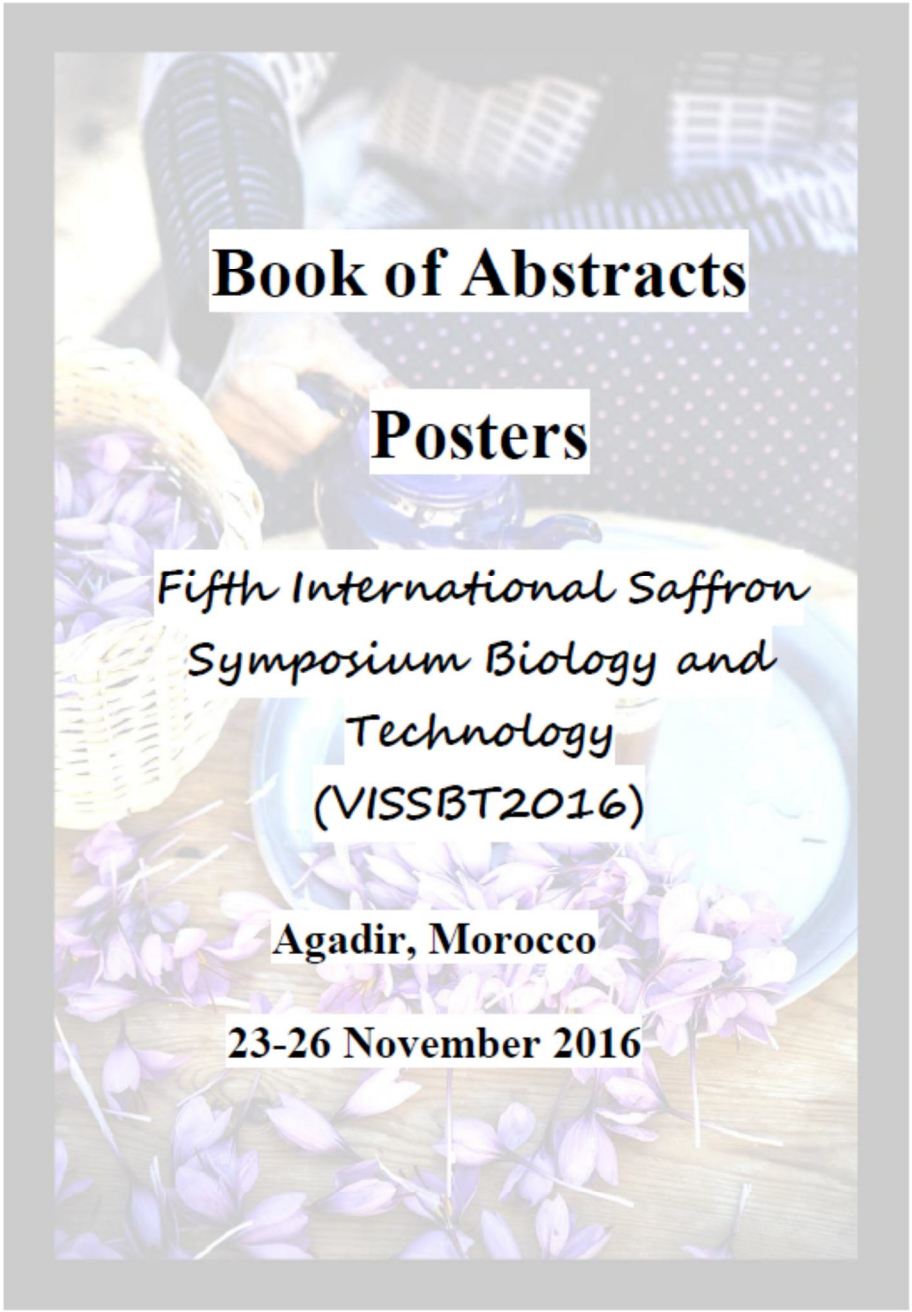

Book of Abstracts

Posters

Fifth International Saffron Symposium Biology and Technology (VISSBT2016)

Agadir, Morocco

23-26 November 2016

Poster 77

Evaluation of weed flora and biodiversity indices in Saffron fields (Case study: Khorasan province)

Surur Khorramdel1, Parviz Rezvani Moghaddam2 and Abdollah Mollafilabi3

Research Institute of Food Science & Technology (RIFST), Iran

Abstract. Dynamics of weed populations in saffron fields are influenced by environmental and soil criteria and also by management practices. To assess weed flora and calculate biodiversity indices in saffron fields of Khorasan province, a survey trial was done in 50 fields during 2014 and 2015. Weed samplings were performed in vegetative growth, dormant and flowering stages of saffron randomly dropped based on systematic method as W pattern. Biodiversity indices were stability coefficient, Simpson, Shannon–Wiener, Margalef and Menhinick. Weeds were grouped based on four characters including vegetation form, photosynthetic pathway, vegetative cycle and degree of noxiousness. Dominant weeds in saffron fields were determined. The results indicated that dominant weeds in saffron fields belong to 19 families and 50 species. Poaceae, Brassicaceae, Asteraceae and Fabaceae were dominant families with 11, 9, 8 and 6 species, respectively. The majority of weed species were dicotyledonous, C3, noxious and annual plants. The highest stability coefficients in growth stages of saffron were calculated in Alhagi camelorum, Avena fatua and Achillea millefolium with 30.81, 24.11 and 12.14, respectively. All weed species except for Alhagi camelorum (sustainable species) and Avena fatua (temporary species) were recognized as causal species. The highest stability coefficients for vegetative, flowering and dormant stages of saffron were computed with Achillea millefolium (12.14), Avena fatua (25.11) and Alhagi camelorum (52.81), respectively. The