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Medicinal Plants

# *Journal of Medicinal Plants*

Proceeding

2



**10<sup>th</sup> National Congress on Medicinal Plants**

**12 & 13 July 2023**

**Urmia, Iran**

# JOURNAL OF MEDICINAL PLANTS

**Proceeding 2**  
**10<sup>th</sup> National Congress on Medicinal Plants**  
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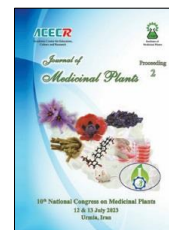
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## 10<sup>th</sup> National Congress on Medicinal Plants

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Urmia, Iran



Poster Presentation ID: 12

### Effect of Weed Management Practices on Weed Population and Saffron Flowering

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ARTICLE INFO		ABSTRACT																																																	
<i>Keywords:</i>		<p>Saffron is a short herbaceous plant with upright narrow leaves which make it a non-competitive plant. Therefore, weeds control is a vital practice for promoting its flower quantity and quality [1, 2]. Accordingly, a field experiment (based on a randomized complete block design with three replications) was performed at the research field of university of Birjand, during 2016-19. Corm planting was done in September 2016 using corms with a mean weight of 6 g and planting density of 50 corms per m<sup>2</sup>. Two years later, when the field was almost 2-years old, different weed control methods were used in February 2018. Experimental treatments are presented in Table 1. At the end of saffron growing season (April 2019), weeds number and dry weight were determined. In addition, at the start of the next flowering season (November 2019), flowers were harvested daily and then flower yield was determined. The highest amounts of weeds number and biomass, but the lowest flower yield were obtained at control (no weed management) treatment. Although there was no significant difference between hand weeding and six chemical control treatments in terms of weeds population, but hand weeding was the best treatment in terms of saffron flower yield [Table 1]. It means that herbicides probably imposed a negative effect on saffron flowering. However, chemical control had a positive effect on flowering compared with no weed control treatment. Overall, it concluded that weed controlling, whether manual or chemical, is a crucial practice for improving saffron flowering, but more research is needed to select and recommend the best herbicide.</p> <p><b>Table 1.</b> Effect of weed control method on saffron flower yield and weeds population</p>																																																	
Chemical	weed																																																		
control																																																			
Flowering	Hand-																																																		
Weeding																																																			
Herbicides																																																			
		<p><b>Table 1.</b> Effect of weed control method on saffron flower yield and weeds population</p> <table><tr><th>Weed controlling treatments</th><th>Concentration (L ha<sup>-1</sup>)</th><th>Weed (number per m<sup>2</sup>)</th><th>Weed dry weight (g. m<sup>2</sup>)</th><th>Flower yield (kg.ha<sup>-1</sup>)</th></tr><tr><td>No weed control</td><td>-</td><td>504.0<sup>a</sup></td><td>257.0<sup>a</sup></td><td>84.8<sup>d</sup></td></tr><tr><td>Hand weeding</td><td>-</td><td>277.3<sup>b</sup></td><td>115.6<sup>b</sup></td><td>217.0<sup>a</sup></td></tr><tr><td></td><td>1.5</td><td>266.6<sup>b</sup></td><td>177.3<sup>ab</sup></td><td>120.5<sup>bcd</sup></td></tr><tr><td>Sethoxydim (Nabo-S)</td><td>3</td><td>178.7<sup>b</sup></td><td>97.11<sup>b</sup></td><td>120.1<sup>bcd</sup></td></tr><tr><td></td><td>4.5</td><td>145.3<sup>b</sup></td><td>99.7<sup>b</sup></td><td>171.0<sup>ab</sup></td></tr><tr><td></td><td>0.5</td><td>149.0<sup>b</sup></td><td>94.4<sup>b</sup></td><td>146.9<sup>bc</sup></td></tr><tr><td>Cletodim (Select super)</td><td>1</td><td>134.6<sup>b</sup></td><td>98.8<sup>b</sup></td><td>146.4<sup>bc</sup></td></tr><tr><td></td><td>1.5</td><td>172.0<sup>b</sup></td><td>82.5<sup>b</sup></td><td>113.4<sup>cd</sup></td></tr></table> <p>In each column, mean with similar letters are not significantly different based on FLSD test.</p>					Weed controlling treatments	Concentration (L ha <sup>-1</sup> )	Weed (number per m <sup>2</sup> )	Weed dry weight (g. m <sup>2</sup> )	Flower yield (kg.ha <sup>-1</sup> )	No weed control	-	504.0 <sup>a</sup>	257.0 <sup>a</sup>	84.8 <sup>d</sup>	Hand weeding	-	277.3 <sup>b</sup>	115.6 <sup>b</sup>	217.0 <sup>a</sup>		1.5	266.6 <sup>b</sup>	177.3 <sup>ab</sup>	120.5 <sup>bcd</sup>	Sethoxydim (Nabo-S)	3	178.7 <sup>b</sup>	97.11 <sup>b</sup>	120.1 <sup>bcd</sup>		4.5	145.3 <sup>b</sup>	99.7 <sup>b</sup>	171.0 <sup>ab</sup>		0.5	149.0 <sup>b</sup>	94.4 <sup>b</sup>	146.9 <sup>bc</sup>	Cletodim (Select super)	1	134.6 <sup>b</sup>	98.8 <sup>b</sup>	146.4 <sup>bc</sup>		1.5	172.0 <sup>b</sup>	82.5 <sup>b</sup>	113.4 <sup>cd</sup>
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۲۱ و ۲۲ تیر ۱۴۰۲ - ارومیه

### 10<sup>th</sup> National Congress on Medicinal Plants

گواهی می‌شود مقاله با عنوان:

Effect of Weed Management Practices on Weed Population and Saffron Flowering

ارسال شده توسط حمیدرضا فلاحي، محمدعلي بهدائي، حسين حمایي، سيد امير حسين حسيني، سيد مرتضي حسيني در دهمین کنگره ملی گیاهان دارویی که در تاریخ ۲۱ و ۲۲ تیر ماه ۱۴۰۲ توسط شبکه ملی پژوهش و فناوری گیاهان دارویی با مجوز پایگاه استنادی علوم جهان اسلام (ISC) و کد اختصاصی ۳۱۷۲۲-۰۳۲۳۰ در دانشگاه ارومیه برگزار گردید، به صورت پوستر ارائه شده است.

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