flower and stigma were increased significantly and the maximum stigma and flower yield was obtained with 15 cm planting depth and also with 21 ton per hectare treatment; however stigma dry matter showed no consistent trend in response to increasing density. For this reason, 21 ton per hectare plant density was not different in terms of sigma dry yield from 11 ton per hectare plant density. Interactions of planting depth and density indicated that highest stigma and flower yield was observed in 11 ton per hectare and 15 cm depth treatment. More data is needed to verify these results in the coming years and therefore the experiment will be continued for two more years.

Keywords: depth, high density, saffron, yield

P2-23. Performance of saffron (*Crocus sativus* L.) under different planting patterns and high corm density

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Despite the long tradition in saffron cultivation in Iran, the knowledge on optimum cultural practices is not well developed and the technology of saffron production has not changed much over the decades. In this regard, in a field experiment during two successive years of 2007 and 2008, the effects of planting patterns and high corm density on agronomic performance of saffron was investigated. A complete randomized block design in a factorial arrangement with three replications was used. Treatments were three corm densities (4, 8 and 12 t ha^{-1}) with three planting patterns (row, random and hill planting). Results revealed that in both years of experiment, corm density and planting pattern significantly affected number of flowers per unit area, dried flower and stigma yield. High corm density of 12 t ha^{-1} and combined with row planting pattern, resulted in highest number of flowers per unit area and also dried flower and stigma yield. Row planting with 12 t ha^{-1} corm was the best combination of treatments in the first year. In general, preliminary results showed that increasing corm density from 4 to 12 t ha^{-1} in a planting row pattern was more effective than other treatments.

Keywords: agronomic practices, flower yield, *Crocus sativus* L.

P2-24. Effect of fertilizers, soil amendments and antifungal compound on severity of corm rot of saffron

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Saffron (*Crocus sativus* L.), a highly desirable golden condiment, is a perennial herb used mainly for medicinal purposes. Saffron is extensively grown in upland and karewas areas of Kashmir valley especially in Pampore and adjoining areas and parts of Jammu Division. It coves about four percent of the total cultivated area of the valley and provides about 16 per cent of the total agricultural income. However the production of saffron are dwindling year after year due to intensive cultivation and mono-culturing of saffron in saffron growing belts of the valley together with the continual use of diseased material resulted in the frequent occurrence of the corm rot diseases. Corm rot of saffron caused by *Fusarium oxysporium* and *Fusarium solani* are most destructive disease of saffron. The disease is wide spread and is present in all the saffron growing areas of kashmr valley. Different fertilizers, soil amendments and antifungal compounds were tested for their efficacy in reducing the root rot disease caused by *Fusarium solani* and *F. moniliforme* on saffron. An increase or decrease of fertilizer dose had no effect/ role in reducing the incidence of disease. Soil amendments mustard cake, vermicompost, deodar leaves 1,5% effectively reduced root rot disease from 58-60 percent in control to 9-11 %. Carbendazim as corm dip treatment was also effective and reduced disease by 68% as compared to control.

P2-25. Weeds gathering and recognition of saffron (*Crocus sativus* L.)

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One of important factors in decreasing the qualitative and quantitative function of agricultural products is weeds, so that giving a prior to weeds recognition and then controlling them will be necessary to achieve the desirable function. Anyway, in a control program, the combination kind recognition of weeds plant is very important. So, this project was carried out for exact recognition of garden and Fields weeds and then classifying them on their importance, Frequency and density in Ghayenat area as large as 52227 k.m.s in 2008. The gardens and Fields were chosen randomly, prepared some samples of their available weeds and retained and recognized in the university herbariyom. The weeds density of Fields was estimated in a % 25 m.s frame and of gardens in a 1 m.s frames. In this study, six gardens and six