

EFFECTIVENESS OF FUSILADE APPLICATION TIME AGAINST GRASSY WEED CONTROL IN SUNFLOWER (*Helianthus annuus*)

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ABSTRACT

In field trials conducted at the National Agricultural Research Centre (NARC), Control of grass weeds including *Sorghum halepense* (johnson grass), *Echinochloa colomum* (junglerice) and *Cyperus rotundus* (sedge) increased yield of sunflower by 20-52% in spring and 33-35% in kharif when the plots were sprayed with a fluzifop-butyl at the rate of 0.5 kg a.i (2 litre) /ha at actively growing stage of 3-4 leaf stage of weed growth.

Also weeds density and their dry weights was significantly reduced except *Cyperus rotundus*. All the parameter including head diameter and 1000 seed weight were also increased with these early time of spraying except plant height as compared to weedy check as well as other treatments both the years respectively.

The head diameter ranged 13.5 to 16.2 cm in spring and 13.3-14.5 cm in kharif season as compared to 10.1-13.1 cm and 10-10.5 cm in weedy check plots whereas seed weights recorded 32.4-42.9 (g) and 31.9-50.1 (g)/1000 seed as compared to 26.3-38.8 and 29.7-42.1 (g)/100 seed in both seasons, respectively.

INTRODUCTION:

Sunflower (*Helianthus annuus* L.) is one of the important source of high quality vegetable oil. As Pakistan has deficiency in edible oil production and spending a sizeable foreign exchange on its import. The import bill for edible oils has been close to Rs. 8 billion in recent years (Muendel, 1990). Being a short duration crop (maturing in 90-100 days), fits well in our cropping patterns and could be grown twice a year without any major change in our present agricultural set-up. Being drought resistant crop, it is also suited for barani (rainfed) areas of the country.

The crop is mainly grown under irrigation, while at present, comparatively little sunflower is grown under rainfed (barani) conditions. Risks in sunflower growing on barani lands are considerably greater in spring season than in the summer season.