

Short Communication

Management of Fruit Damage by Parakeets (*Psittacula krameri*) in Pomegranate (*Punica granatum* L.)

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Studies on protection of fruits of pomegranate cv. Ganesh against parakeets damage by using protective covering were undertaken at AICRP on Arid Zone Fruits, SK Nagar, during the years 1998 to 2001. Pomegranate trees of 7 to 8-year-age and equal growth, planted at 5 x 5 m spacing, were selected. The following six protective

covers were used: polyethylene bags (300 gauge, 22 x 15 cm), polyethylene bags (100 gauge, 22 x 15 cm), brown paper bags (30 x 10 cm), metallic strips, muslin cloth bags (20 x 15 cm), and HDP nylon net (2.5 x 2.5 cm mesh). Polyethylene bags, brown paper bags and muslin cloth bags were covered on each fruit and metallic

Table 1. Effect of different treatments on damage by parakeets in pomegranate

Treatment	Mean per cent damaged fruits due to parakeets			
	1998-1999	1999-2000	2000-2001	Pooled
Polyethylene bags 300 gauge	13.85* (5.48)	14.45 (5.78)	13.13 (5.53)	13.81 (5.60)
Polyethylene bags 100 gauge	13.61 (6.17)	15.61 (7.38)	15.94 (7.12)	15.05 (6.89)
Brown paper bags	17.57 (8.72)	18.97 (10.10)	18.04 (9.40)	18.19 (9.41)
Metallic strips	44.37 (48.42)	47.69 (54.17)	49.84 (57.93)	47.30 (53.51)
Muslin cloth bags	7.28 (1.42)	7.63 (1.64)	8.20 (2.05)	7.70 (1.70)
HDP Nylon net	5.04 (0.36)	4.05 (0.00)	4.05 (0.00)	4.38 (0.12)
Control	57.30 (69.91)	62.27 (77.77)	64.43 (79.31)	61.00 (75.66)
S.Em±	2.56	1.71	2.02	1.17
CD at 5%	7.61	5.07	6.00	3.29
CD at 5% (Y x T)	-	-	-	NS
C.V.%	22.55	14.00	16.39	17.77

*Angular transformed values; Figures in parentheses are actual mean values.

Table 2. Effect of different treatments on yield of pomegranate

Treatment	Healthy fruit yield (kg tree ⁻¹)			
	1998-1999	1999-2000	2000-2001	Pooled
Polyethylene bags 300 gauge	2.89	2.81	3.15	2.95
Polyethylene bags 100 gauge	3.37	2.83	3.38	3.19
Brown paper bags	5.86	3.83	3.65	4.45
Metallic strips	2.91	1.88	1.90	2.23
Muslin cloth bags	4.84	4.55	3.78	4.39
HDP Nylon net	6.71	5.09	4.20	5.33
Control	1.99	1.43	1.25	1.56
S.Em±	0.58	0.35	0.24	0.26
CD at 5%	1.73	1.04	0.70	0.72
CD at 5% (Y x T)	-	-	-	-
C.V.%	28.55	21.94	15.59	24.17

strip fixed on trees, whereas entire tree was covered with HDP nylon net. These six treatments were evaluated against the control pomegranate trees without any cover. Four trees were kept in each treatment. The experiment was laid out in Randomized Block Design with four replications.

Observations on fruit damage were recorded at picking time twice in the month of October. The weight of healthy fruits per tree was also recorded at the same time.

During 1998-99 all the treatments were significantly superior over control in reducing the parakeet damage (Table 1). Among the treatments HDP nylon net (0.36%) was significantly superior than rest of the treatments except muslin cloth bags (1.42%) in reducing the parakeet damage. Highest parakeet damage was observed in metallic strips (48.42%) treatment. More or less similar trend was observed during the years 1999-2000 and 2000-2001. The pooled data also indicated that all the treatments were significantly superior over

control in minimizing the damage due to parakeets. Among the treatments HDP nylon net (0.12%) and muslin cloth bags (1.70%) were significantly superior in checking the parakeets damage.

The yield data presented in Table 2 indicate that during 1998-99 significantly higher yield was recorded in the treatment HDP nylon net (6.71 kg tree⁻¹) and was at par with the brown paper bags (5.86 kg tree⁻¹). During 1999-2000, significantly higher yield was recorded in HDP nylon net treatment (5.09 kg tree⁻¹) and was at par with muslin cloth bags (4.55 kg tree⁻¹). More or less similar trend was also observed during the year 2000-2001. The pooled data indicated that HDP nylon net (5.33 kg tree⁻¹) gave significantly higher yield than rest of the treatments, and was followed by brown paper bags (4.45 kg tree⁻¹) and muslin cloth bags (4.39 kg tree⁻¹), but both the treatments were at par with each other. Therefore, for total protection of the crop and higher yield, covering of orchard with HDP net (2.5 x 2.5 cm mesh) is recommended. Mehrotra and Bhatnagar

(1979) recommended nylon nets to protect bird damage to fruits. Swaminathan and Verma (2000) also found that nylon net (19 mm² mesh) afforded the maximum protection to berries in date palm against birds.

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References

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