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DESTRUCTION OF PEARL MILLET NURSERY BY SPARROWS (*PASSER DOMESTICUS*) AND ITS AVOIDANCE

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ABSTRACT:

Sparrow facultative pests were recorded on nursery stage pearl-millet crop. The damage varied from 0.29 to 8.92 per cent on seedling and germinating seeds on the plants of pearl millet. Sparrow 55-69 was observed in group or solitary awing feeding at nursery stage of the crop.

KEY WORD: *Damage, Sparrow, Nursery Stage.*

INTRODUCTION:

Pearl millet is main crop of the Patan District of Gujarat state. It is grown in two season viz. Kharif and summer. Damage due to bird pests is always taken for granted and is not paid due attention. Birds cause losses to almost all the millet crops throughout the cultivation range and the damage is severe in some places (Jotwani *et al.* 1967). They deserve attention in arid areas where the damage commences from sowing stage and needs protection with suitable pesticide treatment (Bhatnagar, 1976). Sparrows, hitherto considered as the major pest problem in this region for ripening fields of pearl millet and sorghum etc. are now causing concern by wide- spread destruction of Pearl millet crop at the nursery stage. It was observed this year in Kharif 2010 at the Anavada village in the Patan District.

STUDY AREA:

Patan District is located in northern part of the state. It is located 23° 41' to 23° 55' north latitude and 71° 31' to 72° 20' east longitude. Large number of sparrow were noticed observation for the sparrow in festing pearl millet crop nature and extent of damage by the sparrow was carried out in the experimental plot of the Anavada village at Patan district during Kharif season of 2010.

MATERIAL AND METHODS:

The fields having crop of Pearl-millet was randomly selected from each-site. The observations were recorded for hour duration and made during morning and evening hours. The Varieties grown in these areas were Usha-23, MH-179 and pioneer of bajara. To estimate the amount of crop loss from each of the above a plot, an area of each plot was $6.00 \times 5.00\text{mm}$.

RESULTS AND DISCUSSION:

Sparrows visit the field in small or large congregation or even singly and feed on the Seed grains.

Their colour being similar to that of soil, they are not noticed.

Sparrows expose with their beaks pre- germinated and germinated seeds and pull out the just sprouted seedlings before they establish and also feed on the individual ripening grains. The seedlings which escape and reach vegetative phase have their tiny stems stripped by the sparrows, and in course of time wither and die. Damage to the whole nursery is enormous and rapid application of careful watch and scaring with sounds made by the beating of empty drums immediately after sowing have provided significant protection against sparrows and the seeds germinated well and grew without any loss.

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TABLE 1: Sparrow visitant in Pearl millet crop at nursery stage

Date	Morning Birds	Evening Birds	Total
25/06/2010	37	21	58
26/06/2010	27	37	64
27/06/2010	35	34	69
28/06/2010	31	24	55
29/06/2010	25	33	58

TABLE 2: Percentage of damage to pearl –millet nursery stag by Sparrow in Khrif(2010 - 2011)

Plot No	Plot Size (In mt)	Variety	No.of row in each Plot	No.of Seeds in each row	Total No row	Damage	Percentage
1	6.00 × 5.00	MH.179	16	21	336	30	8.92
2	6.00 × 5.00	MH.179	16	21	336	23	6.84
3	6.00 × 5.00	MH.179	16	21	336	12	3.57
4	6.00 × 5.00	MH.179	16	21	336	00	0.00
5	6.00 × 5.00	MH.179	16	21	336	06	1.78
6	6.00 × 5.00	MH.179	16	21	336	01	0.29