

## Short Communication

# Impact of Wild Boar's Habitat on Sugarcane Crop in Faisalabad Division

MAZHER ABBAS, SHAHID HAFIZ KHAN†, RASHID AHMAD KHAN† AND MAQBOOL SHAHBAZ‡

*Technology Transfer Institute (PARC) AARI, Faisalabad–Pakistan*

†*Department of Forestry, Range Management and Wildlife, University of Agriculture, Faisalabad –38040, Pakistan*

‡*Range Research Institute, NARC, Islamabad–Pakistan*

## ABSTRACT

The study was carried out to know the impact of wild boar's habitat on sugarcane crop. One hundred and forty sugarcane growers were taken as study respondents. Of the total respondents: 52.14 and 42.85% were of the view that the types of habitat in their area were crop field and river bellas (forests along river banks), respectively; 37.88 and 38.63% estimated the damage at 10-20 and 20-30% caused by wild boar to March sowing sugarcane crop, respectively; whereas, 59.02% respondents estimated 30-40% damage caused by wild boar to September sowing sugarcane crop in study area.

**Key Words:** Habitat; Wild boar; Sugarcane

## INTRODUCTION

Pakistan is predominantly an agricultural country. A major proportion of the population (67.5%) lives in the rural areas and is directly or indirectly dependent upon agriculture. It provides employment to 44% of labour force and contributes about 25% to the GDP. Sugarcane is the major cash crop of Pakistan. It accounts for 6.3% in value added in agriculture and 1.5% in GDP. Sugarcane crop was cultivated on an area of 1000 thousand hectares during the year 2000-01, which was 4.1% higher than that of the last year (Government of Pakistan, 2002).

The sugarcane yield per hectare in Pakistan is far below than that of other cane producing countries of the world. Pakistan stands at 66<sup>th</sup> number with respect to average per hectare yield of sugarcane (FAO, 2000). The average sugarcane yield of the Punjab is 43186 Kg/hectare, which is lower than that of national average i.e. 49294 kg/hectare (Government of Punjab, 2002).

Low yield of sugarcane may be due to the fact that this crop is damaged by a number of pests, such as root borer, stem borer, top borer, Gurdaspur borer, Pyrilla and others rats, porcupine, wild boar etc. However, the wild boar ranks second in the list of damaging pests and causes huge losses to sugarcane crop.

Wide variety of habitats are available to wild boar especially river bella (forests along river banks), marshy areas, cropped area, riverine forests, flood plains and scattered blocks of irrigated forest plantation (Beg & Khan, 1982). The densely vegetated areas provide a suitable habitat to wild boar from which they seasonally move out from and into the surrounding croplands. The sugarcane fields also provide food and shelter to wild boar (Khan *et*

*al.*, 1986). Therefore, a need exists to know the impact of wild boar's habitat on sugarcane crop.

## MATERIALS AND METHODS

A farm level survey was conducted in Tehsil Chiniot, district Jhang of Faisalabad division. Tehsil Chiniot comprises of 28 union councils, out of which 14 union councils were selected randomly for the study. This Tehsil is the most progressive agriculturally and seems to be the representative in the production of sugarcane crop. The study area was also an ideal wild boar's habitat including river bellas, marshy area, cropped area, irrigation forest plantation to wild boar (Roberts, 1977). From each selected union council, 10 cane growers were selected at random as respondents. Thus, total number of respondents was 140. The data were collected through farmers' interviews using a well-structured questionnaire. The data thus obtained were analyzed using simple percentages to estimate the various responses, to draw conclusions and make pertinent recommendations

## RESULTS AND DISCUSSION

**Types of wild boar's habitat in the study area.** The data in Table I reflect that 52.14 and 42.85% respondents were of the view that the types of habitat in their area were cropped area and river bellas, respectively. While sarkanda area, marshy area and irrigated forest plantation were reported as type of habitat by only 16.42, 22.85 and 2.14 % respondents in the study area, respectively. The above results are in consonance to the study information collected by Brooks *et al.* (1986) and Roberts (1977).

**Table I. Types of wild boar's habitat in the study area.**

Types of habitat of Wild Boar	Respondents' percentage
River bella	42.85
Irrigated forest plantation	02.14
Marshy area	22.85
Cropped area	52.14
Sarkanda area	16.42
Bamboo plantation	0.71

**Table II. Estimate of damage caused by the wild boar to sugarcane crop as stated by the respondents**

Estimate of damage (%age)	March Sowing Respondents %age	September Sowing Respondents %age
UP TO 10%	6.06	6.56
10-20%	37.88	8.19
20-30%	38.63	26.23
30-40%	17.73	59.02

**Estimate of damage caused by wild boar to sugarcane crop.** The data in Table II reveal that 37.88 and 38.63% respondents estimated the damage at 10-20 and 20-30% caused by wild boar to March sowing sugarcane crop, respectively; whereas, 17.43% respondents also estimated the damage at 30-40% caused by wild boar to March sowing sugarcane crop in the study area. Only 6.06% respondents estimated the damage up to 10% caused by wild boar to March sowing crop in the study area.

The data also reveal in Table II that majority of the respondents 59.02% estimated the damage 30-40% caused by wild boar to September sowing sugarcane crop; whereas, 8.19 and 26.3% respondents estimated the damage at 10-20 and 20-30%, respectively caused by wild boar to September sowing sugarcane crop. Only 6.56% respondents estimated the damage up to 10% caused by wild boar to September sowing sugarcane crop in the study area. These findings agree with those reported by Mirza (1978), who observed that wild boar caused a total estimated loss of Rs. 30, 339,000 equivalent to U.S \$ 3.06 million at that time.

It was also observed that soft-rind varieties such as Triton and BL-4 of sugarcane were sown by the majority of respondents in the study area. Huge damage caused by wild boar may be due to that as wild boar damaged the sweeter and soft rind varieties preferentially as compared to hard-rind varieties like COJ-84 and CO-1148 of sugarcane.

## CONCLUSIONS AND RECOMMENDATIONS

- 140 sugarcane growers were taken as study respondents.
- 52.14 and 42.85% of the respondents were of the view that the types of habitat in their area were cropped area and river bellas, respectively.
- 37.88 and 38.63% respondents estimated the damage 10-20 and 20-30% caused by wild boar to March sowing sugar cane crop.
- 59.02% respondents estimated the damage 30-40% caused by wild boar to September sowing sugar cane crop.
- Sugarcane should not be grown in blocks of large size.
- More sweet and soft varieties should be replaced with hard-rind varieties like COJ-84 and CO-1148 etc.
- Alternate acre strips of cropped and fallow or low grown be maintained during cultivation.
- Neighbouring attractive habitats of wild boar be altered in such a way to make them uneasy hiding place for the animals.
- Water channels are made clean and level so that water could not remain standing in them for the wild boars to drink.

## REFERENCES

- Beg, M.A. and A.A. Khan, 1982. The Wild Boar in Pakistan. I. Distribution, Habitat and movement patterns. *J. Anim. Sci. Pakistan*. 4: 46-51
- Brooks, J.E., E. Ahmad and I. Hussain, 1986. *A Partial Research Bibliography on the Biology and Control of Foral pigs and wild Boar Tech.* pp: 1-3. Report 6-vertebrate pest control project NARC, Islamabad
- F.A.O., 2000. *Year Book Annual Production*. Vol-54.p: 170-1
- Government of Pakistan, 2002. *Economic Survey of Pakistan*, Economic Advisor's Wing, Finance Division, Islamabad
- Government of Punjab, 2002. *Annual Research Report*, Sugarcane Research Institutes AARI, Faisalabad
- Khan, M.H., E. Ahmad and I. Hussain, 1986. *The Importance of Wild Boar to Sugarcane Production in Faisalabad District*. p: 3. Tech. Report No. 1 vertebrate pest control project, NARC, Islamabad
- Mirza, A.B., 1978. *Observation on the Habitat and Habits of Wild Boar and Estimates of its Population and Damage to Agriculture in Faisalabad district*. p: 5. Tech. Report No. 10 vertebrate pest control project NARC, Islamabad
- Robrts, T.J., 1977. *Artiodactylia. The Mammals of Pakistan Earnest Bonn*, London

(Received 15 November 2003; Accepted 25 March 2004)