

## TOBACCO CURING IN N.W.F.P.

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## Summary

This paper gives an over view of the position of fuelwood consumption for this industry. In 1984–85 total area under tobacco crop in Pakistan was 50,200 hectares and production was 89.2 million kg. However, in NWFP the total area under tobacco crop was 29,067 hectares and production was 58.16 million kg. Four methods are adopted for tobacco curing i.e. air, sun, flue and fire drying. The tobacco crop grown in NWFP is cured by flue or fire drying methods. The estimated number of kilns (Bhatties) in NWFP is 15,000. Data were collected from 58 curing units throughout the province. The average loading capacity of green tobacco per unit is 1500–2500 kg. The average consumption of fire-wood per sample unit is 1.26 m<sup>3</sup> per load and 6 to 7 days are required to cure one load. The average price of firewood is Rs. 20/–, 28/– and 35/– per 40 kg. for Malakand, Hazara and Peshawar Civil Division respectively. Average rate of rented kilns per load was Rs. 300/–.

## Introduction

Tobacco is grown throughout the country, major share of total production comes from NWFP. The area and the production figures for the country during 1978–85 are given in Table – 1.

Table 1. Area, production and average yield of tobacco in Pakistan 1978–85)

Year	Area (hac)	Production Million kg	Average production kg./hectare
1978–79	47,648	68.1	1429
1979–80	49,869	77.8	1561
1980–81	42,860	67.2	1567
1981–82	43,134	69.2	1404
1982–83	41,313	64.7	1565
1983–84	46,157	79.2	1741
1984–85	50,200	89.2	1737

Source: Pakistan Tobacco Board; Tobacco statistical bulletin volume II, 1986 p. 15

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During 1978–79 the area under tobacco was 47,648 hectares, while the production was 68.1 million kg. and average yield per hectare was 1429 kg. However, during the year 1984–85 the area under tobacco was 50,200 hectares production was 89.2 million kg. and average yield per hectare was 1737 kg. The increase in production was 130 percent.

In NWFP total area under this crop was 28,358 hectares, production was 36.24 million kg. for the year 1975–76. However, during 1984–85 the area was 29,067 hectares and the total production was 58.16 million kg. from the data the area and the production increased by 102% and 161% from 1975–76 to 1984–85.

Total production during the year 1981–82 in Peshawar, Hazara, D.I.Khan and Malakand Civil Division was 38.2, 2.45, 2.71 and 0.047 million kg respectively. For the year 1983–84 the production for Peshawar, Hazara, Malakand and D.I.Khan Civil Division was 48.5, 1.87, 2.08 and 0.01 million kg. respectively. The increase was 161 percent in tobacco production during 1984–85

### **Tobacco curing**

Generally four methods are adopted in commercial tobacco curing i.e air, sun, flue and fire drying. In NWFP flue and fire drying methods are applied for curing tobacco. Curing is done in specifically designed mud plaster shed known as "Bhatty". The average size of Bhatty is 5 x 5 x 5 m. The freshly cut leaves are kept in suspended position on wooden or steel pipes arranged in layers inside the Bhatty and heat is given by burning fuelwood at ground level. Firing process is a continuous one and remains in progress till curing is complete. The curing may take place in three stages i.e yellowing around 27°C – 38°C, drying beginning at 40°C with the gradual rise temperature to around 57–63°C the leaves are finally cured.

### **Methodology for data collection**

The non-availability of number of lists of tobacco curing kilns (Bhatties) in NWFP restricted the use of random sampling technique to be applied. Therefore, quota non-probability method of sampling was carried out for this study. This method is extensively applied in marketing research and social sciences. However, the study area was stratified into three major tobacco producing areas i.e. Peshawar, Hazara and Malakand Civil Divisions. For this purpose 7, 4 and 6 villages in the above Divisions were visited to collect information regarding fuelwood consumption. In all 58 tobacco curing units owners were interviewed according to the design and pre-tested questionnaire. Data were collected during July, August, 1986.

### **Analysis of Data**

The average loading capacity per kiln at one time was 1500–2500 kg. of green tobacco leaves. Average number of times a kiln (Bhatty) loaded was 12 times in one season. The average firewood consumption per load/time was 1.26 m<sup>3</sup> and 6–7 days were required to cure one load. Therefore the estimated fuelwood consumption of sampled growers was 877 m<sup>3</sup>. Fire-

wood is purchased either from market or from the farmlands at an average rate of Rs. 20/—, 28/— and Rs. 35/— per 40 kg. in Malakand, Hazara and Peshawar Civil Division respectively.

Various wood species used as firewood to cure tobacco included *Dalbergia sissoo*, *Acacia nilotica*, *Pinus roxburghii*, *Acacia modesta*, *Quercus incana*, *Morus alba* and *Alnus nitida*. However, the preferred wood species for tobacco curing was *Acacia nilotica*, *Acacia modesta* and *Dalbergia sissoo*.

### Recommendation

Wood for feeding the tobacco curing kilns is obtained from the farm-lands and marginal-land. This resource is dwindling due to over exploitation. A campaign should be started to motivate the farmer to grow fuelwood species so that he does not have to buy wood to run his kilns. Contrariwise when the requisite quantities are not available from the surrounding areas, he would have to arrange wood from distant places resulting in an increase in curing expenses.

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