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Economic and supply constraints encountered by registered apple fruit growers in adoption of recommended marketing practices: A case study of Sopore Fruit Mandi, Kashmir

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Abstract

Adoption of recommended apple marketing practices by growers is frequently constrained not by lack of awareness but by binding economic and supply-side limitations at the farm and mandi level. This study identified and ranked the economic and supply constraints faced by registered apple fruit growers marketing produce through Sopore fruit mandi, Baramulla district, Kashmir, based on a random sample of 150 registered growers interviewed with a pre-tested schedule. Among economic constraints, high cost of fungicide/pesticide (84%, Rank I), high rate of interest on loans (82%, Rank II), high cost of packing boxes (80%, Rank III), high cost of packing straw (78%, Rank IV) and high labour charges (76%, Rank V) were reported, in that order. Among supply constraints, non-availability of labour during harvesting (78%, Rank I), inadequacy of boxes during packing (74%, Rank II), inadequacy of subsidised spraying equipment from the Horticulture Department (62%, Rank III) and non-availability of recommended fungicide/pesticide (58%, Rank IV) were identified. These findings point to input-cost inflation and seasonal input/labour shortages as the two most pressing economic and supply bottlenecks facing apple growers in this mandi, both amenable to policy correction through subsidised input distribution, credit-linkage and labour-supply coordination schemes.

Keywords: Economic constraints, supply constraints, apple marketing, registered fruit growers, Sopore mandi, Kashmir

1. Introduction

Apple growers in the Kashmir Valley operate within a marketing system dominated by private intermediaries, in which the grower typically bears rising input costs while having limited influence over the price finally realised for the produce. Even where growers are aware of recommended marketing practices, economic constraints — the cost of essential inputs such as fungicides, pesticides, packing material and credit — and supply-side constraints — the seasonal availability of labour, boxes, spraying equipment and recommended agro-chemicals — can prevent adoption regardless of underlying knowledge or motivation. Systematically ranking these constraints, as perceived by growers themselves, is therefore essential for prioritising policy and institutional interventions.

This paper documents and ranks the economic and supply constraints faced by registered apple fruit growers of Sopore fruit mandi in adopting recommended apple marketing practices.

2. Review of Literature

Cost-related constraints on input use and credit access have long been documented as major barriers to the adoption of improved practices among horticultural growers, with Mishra (1991) ^[2] reporting similar economic constraints among fruit

growers elsewhere in India. Seasonal labour and input-supply shortages during peak harvesting and packing periods have likewise been identified as recurring operational bottlenecks in perishable-commodity marketing, as noted by Marsh and Coleman (1985) ^[1] in their study of fruit marketing systems.

3. Materials and Methods

The study was conducted at Sopore fruit mandi, district Baramulla, Kashmir, on a random sample of 150 registered apple fruit growers selected from the Fruit Growers' Association list. A pre-tested interview schedule, Part B of which was devoted specifically to constraints in adoption of recommended marketing practices, was administered by personal interview during October-November 2015. Growers were asked to indicate whether each of several pre-identified economic and supply constraints applied to them; frequency and percentage responses were computed for each constraint and constraints were ranked in descending order of the percentage of growers reporting them.

4. Results and Discussion

4.1 Economic constraints

Table 1 and Figure 1 show that the high cost of fungicide/pesticide was the most widely reported economic constraint, affecting 84 per cent of registered growers (Rank

I), followed by the high rate of interest on loans (82%, Rank II) and the high cost of packing boxes (80%, Rank III). High cost of packing straw (78%, Rank IV) and high labour charges (76%, Rank V) rounded out the top five economic constraints. These findings are consistent with Mishra (1991)^[2], who similarly reported input-cost inflation as the

dominant economic constraint among fruit growers, and together they suggest that input-price volatility — for agro-chemicals, packing material and credit alike — is the single largest economic barrier to improved marketing practice adoption in this mandi.

Table 1: Economic constraints encountered by registered apple fruit growers (N = 150)

S. No.	Economic Constraint	Frequency	Percentage	Rank
1	High cost of fungicide/pesticide	126	84	I
2	High rate of interest on loans	123	82	II
3	High cost of boxes	120	80	III
4	High cost of paddy/packing straw	117	78	IV
5	High charges of labour	114	76	V

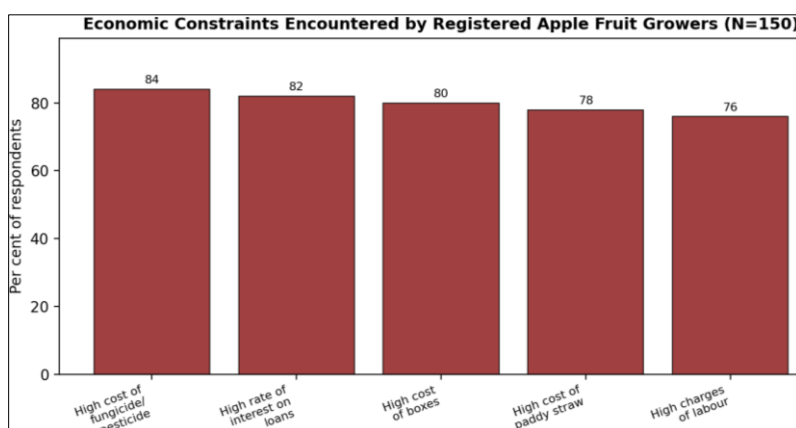


Fig 1: Economic constraints encountered by registered apple fruit growers (N = 150)

4.2 Supply constraints

Table 2 and Figure 2 present the supply-side constraints. Non-availability of labour during harvesting was the most widely reported supply constraint (78%, Rank I), followed by inadequacy or non-availability of boxes during packing (74%, Rank II), inadequacy of spraying motors available at subsidised rates from the Horticulture Department (62%,

Rank III), and non-availability of recommended fungicide/pesticide (58%, Rank IV). These results align with Marsh and Coleman (1985)^[1], and collectively indicate that seasonal peaks in demand for harvest labour and packing material are not being adequately met by existing input-supply and labour-market arrangements around Sopore mandi.

Table 2: Supply constraints encountered by registered apple fruit growers (N = 150)

S. No.	Supply Constraint	Frequency	Percentage	Rank
1	Non-availability of labour during harvesting	117	78	I
2	Inadequacy/unavailability of boxes during packing	111	74	II
3	Inadequacy of subsidised spraying motors from Horticulture Department	93	62	III
4	Non-availability of recommended fungicide/pesticide	87	58	IV

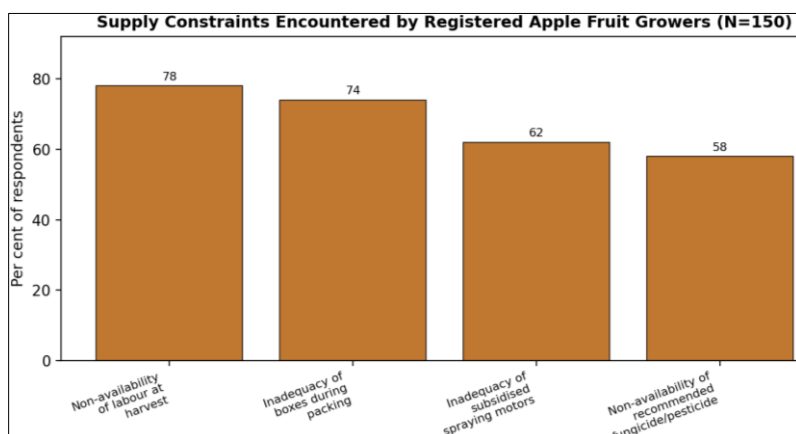


Fig 2: Supply constraints encountered by registered apple fruit growers (N = 150)

5. Conclusion

High input costs — particularly for fungicides/pesticides, credit and packing material — and seasonal shortages of harvest labour and packing boxes emerge as the principal economic and supply constraints facing registered apple fruit growers in Sopore fruit mandi. Addressing these constraints would require a combination of subsidised or bulk-procured input distribution (agro-chemicals, boxes, spraying equipment), targeted low-interest credit lines timed to the production cycle, and organised seasonal labour deployment through cooperative or Horticulture Department-facilitated arrangements, so that growers who already possess adequate marketing knowledge are not prevented from acting on it by resource constraints.

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