

Protective clothing for male farm workers engaged in wheat threshing

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■ **ABSTRACT :** To mitigate health hazards faced by male farm workers during threshing activity, protective clothing and accessories were designed and their suitability and acceptability were assessed. Designed protective clothing was Apron-1: Apron with polo collar and full sleeves with elasticized cuffs (elastic in one row) along with especially designed cap with pleated mask and beak mask. Apron-1 did not cover face and neck properly; hence, Apron-2 was made with hood. Elasticized cuffs having elastic in one row was causing discomfort; hence elastic was used in two rows. Terry voile fabric used for Apron-1 did not provide proper protection. So as per requirement of the apron, beside terry-voile used for Apron-1, terry-cot (45:55) and poplin were selected for Apron-2. Masks made of voile were assessed during pilot study. Other two fabrics *i.e.* cambric and poplin of different thicknesses were selected for both masks. Coloured/plain glasses, gloves and shoes were procured from the market. Developed dresses and procured accessories were given to 25 males for a period of one month for field trials for assessment of suitability and acceptability. The result highlighted that Apron-2 was assessed to be highly suitable ($\bar{x}_v=2.90$) as compared to Apron-1 ($\bar{x}_v=2.63$) with reference to face and neck coverage, comfortable, elasticized cuffs of sleeves and protection provided by fabric. Both the masks *i.e.* beak ($\bar{x}_v=2.86$) and pleated ($\bar{x}_v=2.80$) made from cambric fabric were found to be highly suitable with regards to ease of wearing and removing, coverage of face, appearance and elastic at sides of mask to keep it in position. Protective glasses provided to workers were found to be highly suitable as these protected their eyes from husk, dust and sunlight. Gloves provided to the male farm workers were found to be highly suitable as these protected hands from itching, irritation and cuts and sores. Protective clothing/accessories were highly acceptable by the male farmers due to ease of wearing/removing, easy to maintain ($\bar{x}_v=1.80$) and did not affect the work efficiency of the wearer ($\bar{x}_v=1.75$).

■ **KEY WORDS:** Health hazards, Protective clothing, Suitability, Acceptability

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