**Development of pearl millet flaking machine and food product of flakes**

Traditional food products from pearl millet are manufactured from its flour, cooking of which is time consuming and has low shelf life. To make it convenient for consumption, pearl millet flaking machine was developed. Flaking machine is essentially a set of two rollers, which rotate in opposite direction and press the soft spherical grain flat. It has throughput capacity of 350 kg h-1. It consists of a feeding hopper (MS sheet, 300  300  240 mm) with agitator to feed material at uniform rate. Roller assembly is made up of hard chrome steel (150 mm thick and 355 mm wide) fitted on a C-frame (iron). A sprocket set was fitted to rotate rollers in opposite direction. Clearance of 0.2 mm between the flaking rollers resulted in optimum thickness and bulk density. An electric motor was fitted at the bottom of stand and rotational power was transmitted to the rollers and agitator of feeding unit through V-belt pulley to reduce roller rotation up to 100 rpm. An outlet tray was fitted at the bottom of stand to collect the prepared flakes (Fig. 1 &2).

Steaming treatment produced flakes of lower bulk density than pressure cooking. Emulsion activity and emulsion stability of flakes improved significantly after pre-treatments. The ash and protein content ranged between 0.1-0.5 g and 9.41-12.89 g, respectively. Different processed food products namely health bar, chocolate, *poha* mix and *kheench* mix etc. were developed using pearl millet flakes (Fig. 3).

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