



Consolation Award

Lac Processing Machine

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Sourav comes from a humble background and aspires to become an electrical engineer. When he submitted his idea about the lac processing machine he was a school student, but now he has completed diploma in Electrical Engineering. He is very enthusiastic about machines.

Lac cultivation involves five major operations which are pruning, inoculation, used up broodlac (phunki) removal, harvesting and lac scraping. Mostly, lac cultivation operations are carried out manually. In one method, farmers sit on the ground in a group and scrape lac with the traditional tools like a small scraping knife (dauli) and sickle. In another method, farmers remove lac encrustation by beating lac sticks with bamboo stick. One person

scrapes 5-10 kg of lac in a day. As scraping is done on the ground, unwanted foreign materials like sand, soil, and wooden twigs find their way into scraped lac, reducing the price. Also the manual lac scraping is a very slow and tedious process.

Sourav was inspired by sugarcane juice extracting machine and designed a simple manually operated roller type lac scraper on the similar principle. The machine scrapes lac under the action of shear and compressive forces and has an attached rotator. Sourav's machine can remove lac from the branches without breaking them. As a result, the amount of impurities is lesser in the extracted lac and it takes lesser effort to clean it.

