



Unit - 5

Dehusking of paddy: methods, merits and demerits

Dehusking of paddy, also known as rice husking, is the process of removing the outer husk from paddy grains to obtain brown rice. Various methods can be employed for dehusking, each with its own merits and demerits. Here are some of the common methods:

Methods of Dehusking Paddy

1. Traditional Hand-Pounding

- **Process:** Using a mortar and pestle or a wooden beam to pound the paddy grains.

2. Foot-Powered Mortars

- **Process:** Similar to traditional hand-pounding, but powered by foot for more efficiency.

3. Mechanical Dehuskers

- **Types:**
 - **Drum Dehuskers:** Employ rotating drums to separate husk from grains.
 - **Rubber Rollers:** Use rubber rollers to gently crush the paddy and separate husk.

4. Modern Automated Mills

- **Process:** Fully mechanized systems that can process large quantities quickly, incorporating cleaning, dehusking, and polishing in one go.

Merits of Each Method

1. Traditional Hand-Pounding

- **Merits:** Low cost, no energy required, and preserves the quality of rice.

2. Foot-Powered Mortars

- **Merits:** More efficient than hand-pounding, still low-cost, and minimal energy use.

3. Mechanical Dehuskers

- **Merits:** Faster processing, consistency in quality, and reduces labor intensity.



SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
Coimbatore – 641035.



4. Modern Automated Mills

- **Merits:** High throughput, integrates multiple processes, minimal manual labor, and often produces higher quality rice.

Demerits of Each Method

1. Traditional Hand-Pounding

- **Demerits:** Labor-intensive, time-consuming, and may lead to higher breakage of grains.

2. Foot-Powered Mortars

- **Demerits:** Still labor-intensive, with limited capacity for large-scale processing.

3. Mechanical Dehuskers

- **Demerits:** Requires initial investment and maintenance, may result in some grain breakage if not calibrated properly.

4. Modern Automated Mills

- **Demerits:** High initial costs, reliance on electricity, and can lead to greater waste if not managed well.

Conclusion

Choosing the right method for dehusking paddy depends on factors like scale of operation, available resources, and desired quality of the final product. Traditional methods may be preferred in small-scale, subsistence farming, while mechanical and automated methods are better suited for commercial operations. Each method has its advantages and challenges, making it important to assess local conditions and needs before deciding.