

“Development of Pharmaceutical and Cosmetic Products using Rice bran wax”

Innovative Products Developed

- Sustained Release Nifedipine Tablet
- Lipsticks
- Moisturizing Cream

By

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Rice bran wax

- Rice bran wax is the vegetable wax derived from Rice bran oil.
- Its presence is **2-4 %** (average **3%**) in Rice bran oil.
- Presence of such high content of wax in Rice bran oil makes it hazy and turbid under winter condition.
- It also increases the viscosity of crude Rice bran oil.
- Due to these reasons wax is removed from crude oil by dewaxing.
- **10.5** lakh MT of Rice bran oil was produced in India during year 2021.
- Considering **3%** of wax content, there is potential of producing **31500** MT of Rice bran wax. If this much wax is refined and sold at the rate of **Rs. 300/-** per kg then it can generate **Rs. 945** Cr. business.

Sludge Wax



Waste product

Pressed Wax



By product

Purified Wax



Regular product

Refined Wax



Value added

Formulation of Nifedipine Sustained Release Tablets using Rice bran wax



Sr No.	Ingredients	Quantity per tablet
1	Nifedipine	30 mg
2	Rice bran wax	60 mg
3	Avicel PH 101	80 mg
4	Triethyl Citrate	7.50 %
5	Talc	1 %
6	Mg. Stearate	0.50 %

Formulation of Lipstick using Rice bran wax



Sr. No.	Ingredients	Quantity
1	Rice bran wax	3.5%
2	Candelilla wax	3 %
3	Ozokerite wax	4%
4	Yellow bees wax	10%
5	Lanoline	8%
6	Castor oil	58%
7	Butyl stearate	2%
8	IPM	0.50%
9	Liquid paraffin	2.5%
10	White soft paraffin	1.45%
11	VitE/BHA/BHT	0.05%
12	Staining dye	0.50%
13	Colour lakes	0.50%
14	Opacifier	2%
15	Oily flavor	0.5%
16	Ferric oxide	3.5%

Formulation of Moisturizing Cream using Rice bran wax



Ingredients	Quantity (%)
Phase A	
Rice bran Wax	7.5
Stearic Acid	1.75
Lanolin	2
Liquid Paraffin	5
Cetostearyl Alcohol	2
Glyceryl Monostearate	3
Phase B	
Triethanolamine	0.8
Glycerin	7.5
Sorbitol	2.5
Propylene Glycol	5
Methyl Paraben	0.18
Propyl Paraben	0.02
Water	q.s. to make 100