



IX. List of Practical

S.No.	Topic	No. of Practicals
1.	To study seed processing equipment such as pre-cleaners, scalpers and their performance evaluation.	2
2.	To study graders and their performance evaluation.	2
3.	To study air screen cleaners and their performance evaluation.	1
4.	To study spiral and pneumatic separators and their performance evaluation.	2
5.	To study seed treating equipment, bag closures, scale and their performance evaluation.	2
6.	To study design and layout of seed processing plant and its economics.	2
7.	To analyze the cost of operation and unit cost of processed product.	2
8.	To study the effect of drying temperature and duration of seed germination and storability.	2
Total		15

X. Suggested Reading

- Babasaheb. 2004. *Seeds Handbook: Processing and Storage*. CRC.
- Gregg *et al.* 1970. *Seed Processing*. NSC.
- Guar. 2012. *A Handbook of Seed Processing and Marketing* Agrobios.
- Henderson S and Perry S M. 1976. *Agricultural Process Engineering*. 5th Ed. AVI Publisher.
- Mathad. 2017. *Seed Processing: A Practical Approach*. NIPA.
- Sahay KM and Singh KK. 1994. *Unit Operation of Agricultural Processing*. Vikas Publisher House.
- Vaughn. 1968. *Seed Processing and Handling*. https://www.mcia.msstate.edu/pdf/seed-processing-and-handling_1.pdf.

I. Course Title : Agri-Project Planning and Management

II. Course Code : PFE 513

III. Credit Hours : 2+1

IV. Aim of the course

To acquaint and equip the students with the techniques of project development and evaluation along with different standards.

V. Theory

Unit I

Project development, market survey and time motion analysis.

Unit II

Selection of equipment, technology option, techno-economic feasibility and processing in production catchment.

Unit III

Product and process design, PERT, CPM, transport model, simplex, linear and dynamic programming, operation log book. Material balance and efficiency analysis, performance testing, performance indices, energy requirement and consumption. Marketing of agricultural products, market positioning.

Unit IV

BIS/FSSAI/ISO standards/ guidelines on best practices, equipment and their design and operation for handling, processing and storage of food/feed.

VI. Practical

Preparation of project and feasibility report. Salient features, design and layout of different food processing units; MSME, large processing unit. Record keeping related to production, finance and marketing. Techno-economic feasibility and SWOT analysis for Start-ups.

VII. Learning outcome

Student's capability to plan, scheduling of activities and manage a food related project as per requirement of food industries.

VIII. Lecture Schedule

S.No.	Topic	No. of Lectures
1.	Project development.	2
2.	Market survey and time motion analysis.	2
3.	Selection of equipment for agro project planning.	2
4.	Technology option.	2
5.	Techno-economic feasibility and processing in production catchment.	2
6.	Product and process design.	2
7.	PERT, CPM.	2
8.	Transport model, simplex, linear and dynamic programming, operation log book.	3
9.	Material balance and efficiency analysis.	3
10.	Performance testing, performance indices, energy requirement and consumption.	3
11.	Marketing of agricultural products, market positioning.	2
12.	BIS/FSSAI/ISO standards/ guidelines on best practices.	2
13.	Equipment and their design and operation for handling, processing and storage of food/feed.	3
	Total	30

IX. List of Practicals

S.No.	Topic	No. of Practicals
1.	To study the preparation of project and feasibility report.	2
2.	To design salient features, design and layout of MSME.	2
3.	Design and layout of different food processing units: MSME, large processing unit.	2
4.	To study record keeping related to production.	2
5.	To study record keeping related to finance and marketing.	2
6.	To conduct experiment on agro project management and design techno-economic feasibility.	2
7.	To conduct SWOT analysis for different Start-ups.	3
	Total	15

X. Suggested Reading

- Ahmed T. 1997. *Dairy Plant Engineering and Management*. 4th Ed. Kitab Mahal.
- Albert L. 2017. *Project Management, Planning and Control*.
- Anandajayasekeram P. 2004. *Agricultural Project Planning and Analysis*.