

PROFILE

The ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET) was established on 3rd October 1989 at the PAU Campus, Ludhiana, Punjab, India as a nodal institute to undertake lead researches in the area of the Post-Harvest Engineering and Technology appropriate to agricultural production catchment and agro-industries.

The institute's second campus was established on 19 March 1993 at Abohar, Punjab, India. Which is primarily responsible for conducting research and development activities on fruits and vegetables, and commercial horticultural crops. ICAR-CIPHET is also headquarters for two All India Coordinated Research Projects (AICRPs) viz. AICRP on Post-Harvest Engineering and Technology (PHET) at 31 Centres and AICRP on Plasticulture Engineering & Technology (PET) at 14 Centre's.

MANDATE

- Research on post-harvest processing, preservation, storage and value addition of agricultural commodities.
- Human resource and entrepreneurship development in post-harvest engineering and technology.

CONTACT

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Principal Investigator (ABI)

P.O. PAU LUDHIANA (PUNJAB) -141004 Phone: 0161-2313135, 9876621203 (M) Email: abic.ciphet@gmail.com.

INVITATION

EXPRESSION OF INTEREST (EOI)

FOR

PROVIDING INCUBATION SUPPORT TO STARTUPS/INCUBATES

AT

AGRI-BUSINESS INCUBATION CENTRE ICAR-CIPHET, LUDHIANA

(LAST DATE: 30TH SEPTEMBER, 2022)

PRODUCE

PROCESS

PROSPER





भा.कृ.अन्.प.-केन्द्रीय कटाई-उपरान्त अभियांत्रिकी एवं प्रौद्योगिकी संस्थान

डाकघर पी. ऐ. यू. लुधियाना - 141004 (पंजाब) ICAR - Central Institute of Post- Harvest Engineering & Technology Postal Address: PO: PAU, Ludhiana-141 004 (Punjab)



ICAR-CIPHET AGRI-BUSINESS INCUBATION CENTRE [ABIC]

Information-Cum-Guidelines to Applicants for Registration for availing Agri-Business Incubation Units [ABI-Units] facilities

Applicants may register/submit applications for seeking ABIC facility

1.0 Objective:

The main objective of the ICAR-CIPHET Agri-Business Incubation centre [ABIC] is to promote setting up of agri-business enterprises based on ICAR-CIPHET developed technologies/facilities available through business incubation support to the interested and potential entrepreneurs/organizations [SHG/FPO/NGO etc.]. The support is provided in the form of novel technology, leasing of institute Incubation facility including equipment, pilot scale plants, laboratories, library, office rooms, institute meeting and conference rooms etc. and to hand holding is extended to the incubates to facilitate them to successfully setup their enterprise based on CIPHET technology learnt at CIPHET-ABIC. The technology-wise details and facilities available in different ABI Units at CIPHET-ABIC is provided in another document on this site through a link.

2.0 Eligibility:

Anyone who is keen and has passion to set up an Agri-Business enterprise can apply. Applicants can be Individual(s)/SHG/FPO/society etc. Applicants must possesses requisite basic characteristics of an entrepreneur, leadership, passion, vision, and hard work and commitment with ability to take a novel technology based business idea from scratch to a large scale successful business unit. There is no minimum educational qualification, however candidate should have adequate working knowledge to communicate in Hindi/English as may be required for setting /running such an enterprise. For some of the listed technologies, entrepreneurs may need to first take license of the respective ICAR–CIPHET technology before joining the using the ABI unit facility.

The broad procedure and guidelines for applying and availing these facilities is as follows:

3.0 Procedure / Guidelines for Application / Registration for Availing ABIUnits

Applicants may send their request through email on <u>abic.ciphet@gmail.com</u>, register online on ICAR-CIPHET web site <u>https://ciphet.icar.gov.in/.</u> by filling online proforma provided or through Google form at <u>https://tinyurl.com/IIFA-EOI-2022</u>. Applicants may register/submit applications on or before 30 Sept 2022.

- Whenever there is vacancy in respective ABI unit, their application would be considered for selection. Institute may not always invite application through advertisement in newspapers.
- Applicants, who are unable to apply online may download application proforma, type and forward their filled in Registration/application form, in PDF form through email to the address given below <u>abic.ciphet@gmail.com</u>. Applications sent by post will not be accepted. Application can be submitted in Hindi/English.
- Information on presently available ABI units is provided through a link on this site. New ABI units may be added from time to time. Information on vacant as well as newly added ABI unit would be uploaded & updated on CIPHET website from time to time. Hence, interested applicants are advised to regularly visit ICAR-CIPHET website for getting latest updates.

4.0 Selection of candidates for incubation facility

 An expert committee appointed by Director, ICAR-CIPHET would screen and short list the registered applications received for a particular ABI Unit, based on information provided by them in online Registration/Application form. The short-listed applicants may be interviewed by Expert Committee for final selection.

5.0 Signing of an Agreement for Utilizing the ABI unit facility

- If selected for using of the CIPHET ABI Unit facility, the applicant would have to sign a Memorandum of Agreement [MOA] with ICAR-CIPHET for taking the ABI Unit facility on lease. The agreement would include the registration fee, security deposit and duration of the leasing of facility and other terms & conditions as applicable.
- The progress would be monitored regularly and any violation of terms & conditions of MoA would lead to termination of extended facility.
- After successful utilization of ABI Unit facility, the applicants / entrepreneur are expected to set up their own enterprise based on the technology they had leased in CIPHET-ABI. Institute would encourage and extend scientific and technical guidance and support to the entrepreneurs for establishing their own enterprise. Some of these supports would free and others on payment basis.
- The decision of the Director, ICAR-CIPHET, Ludhiana in all matters would be final and binding and no correspondence will be entertained in this regard.

For further information please contact:

Principal Investigator [PI] Agri-Business Incubation Centre & Head, Technology Transfer Division,ICAR-CIPHET Ludhiana

<u>Website:</u> <u>https://ciphet.icar.gov.in/</u> E-mail:abic.ciphet@gmail.com <u>Contact No.: +91-9876621203 and 0161-2313116/135</u>



भा.कृ.अनु.प.-केन्द्रीय कटाई-उपरान्त अभियांत्रिकी एवं प्रौद्योगिकी संस्थान

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ICAR-CIPHET AGRI-BUSINESS INCUBATION CENTRE [ABIC]

Agri-Business Incubation Centre [ABI Units]

Available for Entrepreneurs

S No.	Technology/Pilot Plant
1.	Groundnut/soy processing
2.	Mini rice mill (0.5 t/h)
3.	Dal mill (PDKV/CIAE)
4.	Makhana processing
5.	Modern dal mill
6.	Rice mill (100 kg/h)
7.	Cryogenic grinding
8.	Animal feed plant

Note: Applicants may apply/register for all above ABI units. Institute may add new ABI unit or withdraw any of these ABI units without assigning any reason thereof.

Agri-Business Incubation Centre [ABIC] & Technology Details

1. Groundnut/soy processing

Technology

Groundnut milk products have nutritional benefits because of their extreme richness in protein, minerals and essential fatty acids such as linoleic and oleic acids, which are considered to be highly valuable in human nutrition. It is extensively used in India and other developing countries by the vegetarians and more recently by children allergic to cow milk proteins. Being free in cholesterol and lactose, Groundnut dairy analogues is also a suitable food for lactose intolerant consumers, vegetarians and milk allergy patients. One kg of peanut kernel will produce 7 litre of peanut milk. Similarly one kg of peanut kernel can be converted into one kg of paneer. Twenty percent of (20%) okra is left during the process of conversion of peanut into milk. The okra can be further dried and utilized in different sweets in different proportion. The developed products are excellent in taste and rich in nutritional quality.

Pilot Plant Facility: A small pilot scale unit (Capacity: 1–1.5kg/h) consists of several equipment is available for use by incubates.

Business Opportunity:

The entrepreneurs can use the facility for hands-on training and for making limited scale production of groundnut/soy based flavoured beverage, curd and paneer to assess consumer preference, product modifications and market Subsequently, a commercial unit could be set up by the entrepreneurs. CIPHET would provide necessary guidance /support in their endeavours. Would need to bring raw material. Normally this facility if given for 03-06 months (as per committee decision).



2. Mini rice mill (0.5 t/h)

Technology

Pilot Plant facility Technology & Facility: The Mini Rice Mill is suitable for making rice with a capacity of 0.5 t/h. It is suitable to produce better quality rice kernels with higher rice kernel recovery than in the traditional rice mills. The process comprises cleaning of the paddy to remove stones, dust, chaff etc. The cleaned lot is fed into the de-husker machine where with the help of rubber rollers husk is separated. The Brown rice so obtained is then taken to huller where polishing is done by mild friction created within the polishing chamber. The resulting polished rice and bran are separated and collected. It is proposed to use this facility to be run as business unit by an incubatee to learn the technical knowhow, and then set up own business.

Business Opportunity: The Incubate would learn and use the available Mini Rice Mill, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision).

3. Dal mill (PDKV)

Technology

Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola has developed a dal milling unit (popularly known as PKV mini dal mill), which has good potential for adoption at small scale. The plant requires low investment and about 200 m² area for operation with proper storage facility. The unit is primarily meant for preparation of pulse splits (dal) from pigeon pea, black gram, green gram, cowpea, soybean, etc. The capacity of this mill is 100 to 125 kg/h for pigeon pea and 125–150 kg/h for green and black gram. The respective recoveries are 72–75 % (brokens– 5.08 %) and 80–82 % (brokens: 2– 2.5 %). The tentative cost of the dal mill is Rs. 2–3 Lakhs depending upon the capacity of the unit.

Business Opportunity: The Incubate would learn and use the available Dal Mill, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision).

4. Makhana processing

Technology

Pilot plant facility: The makhana pilot plant (Capacity: 35–40kg/h) consisting of raw makhana seed washer, grader, mechanized roaster and makhana popping machine and popped makhana grader suitable for processing of clean raw seed to popped makhana.

Business Opportunity: The Incubate would learn and use the available makhana pilot plant, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision).



5. Modern dal mill

Technology

Pilot plant facility: The Modern Dal Mill is suitable for making Arhar dal/pulses with a capacity of 0.5 t/h. It is suitable to produce better quality dal with higher dal recovery than in the traditional dal mills. In addition, the pollution is also much less compared to traditional mills. The dal mill follows the steps: scratching, followed by soaking drying and de-hulling cum polishing. It is proposed to use this facility to be run as

ICAR-CIPHET ABI Information and Guideline to Applicants

business unit by an incubatee to learn the technical knowhow, assess the market demand of the dal and then set up own business.

Business Opportunity: The Incubate would learn and use the available Modern Dal Mill, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision). 6. Rice mill

Technology

Single Pass Rice Mill Including Husker and Polisher is efficient and excellent commercially viable with simple design. It serves the varying needs of the end users without much complexity. The Rice mill is having capacity 100–200 Kg/h with 5 HP three phase electric motor with shaft speed of 1400 RPM.

Business Opportunity: The Incubate would learn and use the available Mini Rice Mill, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision). **7. Cryogenic grinding**

The Cryogenic grinder is suitable for grinding coriander, black pepper, fenugreek, turmeric at ultra low temperature, thereby maintaining their flavor and medicinal properties with a capacity of 30–50kg/h. Indigenous cryogenic spice grinding system can be used for grinding of spices at cryogenic temperatures, thereby maintaining their flavor and medicinal properties. The cryo–ground powders can be used for better ICAR-CIPHET ABI Information and Guideline to Applicants extraction (quantity) of medicinal components such as curcumin in turmeric. There is a provision of collection of ground spice product (spice powder) through cyclone system and immediate sieving system for different grades of the powder.

Business Opportunity: The Incubate would learn and use the available Cryogenic grinder, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision).



8. Animal feed plant

Technology

Pilot plant facility: The Animal feed plant is suitable for making feed for animals such as cows, buffaloes, bullocks etc. with a capacity of 1q/hr. It is suitable to produce better feed

pellets with good quality. The animal feed preparation follows the steps: grinding of various ingredients in hammer mill followed by mixing in ribbon blender and pelletizing in pelletizer, drying and packing.

Business Opportunity: The Incubate would learn and use the available feed plant, do market acceptability and develop backward and forward linkages to explore the business opportunity. Would need to bring raw material. Normally this facility if given for 03–06 months (as per committee decision).





AGRI BUSINESS INCUBATION – REGISTRATION FORM



ICAR-Central Institute of Post Harvest Engineering and Technology PO: PAU campus, Behind GRD Academy/Radha swami satsang-1 Humbran Road, Ludhiana-141 004, Punjab Phone No-0161-2313186/2313141, Fax no -0161-2308670

> Website: https://ciphet.icar.gov.in/, Email: ciphet.icar@gmail.com

A. Applicant's information

Applicant's Status /			
Fresher/Entrepreneurs/Service/Others			
Applicant's Category𝔅Individual□𝔅Farmers Producer Company1. Applicant's Name *	 Self Help Group Non-Govt. Organization Others 		
Sh./ Smt./Kumari/ Organization Name			
2. Age			
3. Postal Address of the applicant (Identity card no. showing present address: [Any one] Aadhaar/ Voter Id/Driving License Reg. & Contact No.)			
4. Email * (All communications would be only through Email)			
Name of contact person in case of organization			
5. Highest Qualification of applicant with specialization			
 6. Experience (in years/month) 6.1 Previous experience of running business/enterprise/Service/any otherIf yes details there of If business enterprise Product/Service/Trade/others please specify Present Status of enterprise Turnover/Investment If Stopped, why What are you doing at present 			
7. Details of main entrepreneur. (Core comp	petency)		

08. Do you have any innovative idea / planning to develop a new product / start-up / service in Agricultural engineering sector? If yes, at what stage you are? (Please tick the			
appropriate box) (Check all that apply)			
Stage a : Just an idea so far, need technical advice			
Stage b : Developed a prototype of the product/service, need testing			
Stage c : The product or service is fully developed and now need to grow the business need guidance/support			
9. Have you registered a legal business entity? Mark only one. If yes			
Yes			
No			
What is the legal status of the entity you formed?			
Mark only one			
Sole Proprietorship			
Partnership			
Limited Liability Partnership			
Private Limited Company			
Joint Family Business			
other organization (SHG/FPO/NGO/Other)			
None			
Company's Name			
Location / Address			
Establishment year			
GST No. (If available)			
Type of Business			
No. of Employees			
Details of applicant on following			

Finance-Self/Loan

Linkage with organizations

Team experts/Skills/training/management degree/diploma

B. Agri-Business Incubation Available (Details given in enclosed link)

10. Which ABI u	nit you are interested to apply for?
S.No	D. Technology/Pilot plant
	Groundnut/soy processing
2	2. Mini rice mill(0.5 t/h)
	B. Dal mill (PDKV/CIAE)
4	4. Makhana processing
Ę	5. Animal feed plant
(B. Rice mill (100 kg/h)
	7 Cryogenic grinding
	3. Animal feed plant

C. Entrepreneurial skills of applicant

Please reply to following queries (50 words for each):

Why you want to do business in agricultural sector?

What is your short term (1-2 yrs.) goal/vision for your business?

What is your long term (3-5 yrs.) goal/vision for your business?

Reasons for selecting a particular product/plant/facility in ABI?

What is your plan to promote and market the new product you have selected at CIPHET ABI Unit?

Why you should be given priority over others for the ABI unit you have applied for?

Please list your strengths and weakness as an entrepreneur / businessman for selected product / ABI unit you have chosen?

If you are not selected as CIPHET ABI incubate, what will you do?;

Any other relevant information, which may support your application

Undertaking

I hereby state that I am interested in availing technologies and services rendered by ICAR-Central Institute of Post-Harvest Engineering & Technology, Ludhiana, throughits Agri-Business Incubation Centre and will abide by the guidelines, term & conditions and regulations of ICAR. I have gone through and understood the relevant guidelines terms & conditions and regulations of CIPHET and will abide by the decisions of CIPHET.

I hereby undertaking that information provided above is correct to the best ofmy knowledge and belief. I understand that if any information is found incorrect, false or misleading, at any stage, my application is liable to be rejected and facilities offered would be withdrawn instantaneously.

Place:

Date:

Signature of the Authorized applicant/ personnel

Note: All have to apply on-line only. If you are unable to apply on line, please ask for permission to apply through email. No application would be accepted by post or by hand.