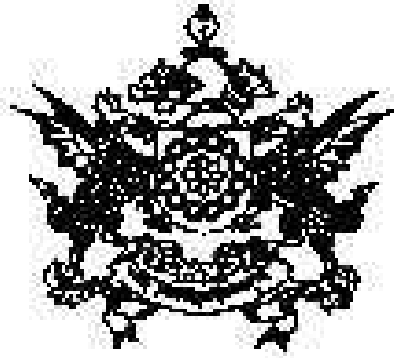


**INFORMATION MEMORANDUM**

**FOR**

**Supply, Installation, Commissioning of Integrated Automatic**

**Buckwheat processing plant**



**FS & AD DEPARTMENT  
GOVERNMENT OF SIKKIM**

Reference No: 99/Ag/Engg/2017-18

## **Important Notice**

This Information Memorandum has been prepared on behalf of the Government of Sikkim in connection with the proposed Supply, Installation and Commissioning of Integrated Automatic Buckwheat processing plant having 500 kg/hour capacity at Regulated Wholesale Market Complex, Rangpo, East Sikkim under Rashtriya Krishi Vikash Yojna.

The Memorandum is for information purpose only and has no binding force. It is made available on the express understanding that it will only be used by the Recipient for the sole purpose of assisting the Recipient in deciding whether it wishes to proceed with a further investigation of possible participation in the Tender. The Memorandum is not intended to form any part of the basis of any investment decision or other evaluation or any decision to participate in the Tender and should not be considered as a recommendation by the Government or its advisers to any Recipient of the Memorandum to participate in the Tender.

Each Recipient must make its own independent assessment of the potential of proposed Supply, Installation and Commissioning of Automatic Buckwheat processing plant after making such investigation as it may deem necessary in order to determine whether to participate in the Tender. All information contained in this Memorandum is subject to updating, modification and amendment.

While the information contained in the Memorandum has been prepared in good faith, no representation or warranty, expressed or implied, is or will be made as to the reliability, accuracy or the completeness of any of the information contained herein.

Neither the Government nor its advisers (including their respective directors, partners, officers or employees) accept or will accept any responsibility or liability as to, or in relation to, the accuracy or completeness of the information contained in the Memorandum or any other written or oral information made available to any interested party or its advisers and any liability in respect of any such information or any inaccuracy in the Memorandum, or omission from the Memorandum, is expressly disclaimed. In particular, but without prejudice to the generality of the foregoing, no representation or warranty is given as to the achievement or reasonableness of any future projections, estimates, prospects or returns contained in the Memorandum.

The Memorandum does not constitute an offer or invitation to participate in the Tender for proposed Automatic Buckwheat processing plant, nor does it constitute the basis of any contract which may be concluded in relation to the Tender. Recipients are not to construe the content of the Memorandum, or any other communication by or on behalf of the Government or any of its advisers, as financial, legal, tax or other advice. Accordingly, each recipient should consult its own professional advisers as to financial, legal, tax and other matters concerning any potential participation in the tender.

This Memorandum outlines the Government's expectations in relation to the proposed Tender. The Government reserves the right, in its absolute discretion, at any stage, to withdraw its proposal to conduct the Tender or any part thereof or to terminate further participation in the proposed Tender by any entity, to change the structure and timing of the proposed Tender, to refuse entry to any entity into the Tender or to vary any other terms and conditions of contract.



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**GOVERNMENT OF SIKKKIM**  
**FOOD SECURITY AND AGRICULTURE DEVELOPMENT DEPARTMENT**  
**KRISHI BHAWAN, TADONG**

**No: 99/Ag/Engg/2017-18**

**Dated: 07.07.2017**

**NOTICE INVITING INFORMATION**

This Information Memorandum is issued to invite information from the interested parties for the proposed Supply, Installation and Commissioning of Integrated Automatic Buckwheat processing plant having 500 kg/hour capacity at Regulated Wholesale Market Complex, Rangpo, East Sikkim under Rashtriya Krishi Vikash Yojna. The following time schedule given below shall be adhered to.

- |                                    |                      |
|------------------------------------|----------------------|
| 1. Issue of Information Memorandum | : 07.07.2017         |
| 2. Pre Bid Conference              | : 14.07.2017 2.00 pm |
| 3. Receipt of suggestions/query    | : Till 17.07.2017    |
| 4. Reply of Queries                | : 22.07.2017         |

The Information Memorandum can be downloaded from the websites [www.sikkim.gov.in](http://www.sikkim.gov.in) and [www.sikkimagrisnet.org](http://www.sikkimagrisnet.org)

Director

FS&AD Dept.

## INTRODUCTION

### 1.1 Introduction

The Ministry of Agriculture and Farmers Welfare, Government of India, have allocated funds to the state government for undertaking various activities in Agriculture and allied sectors under Rashtriya Krishi Vikash Yozna with a funding pattern of 90: 10 (Centre:state).

Supply, Installation and Commissioning of Integrated Automatic Buckwheat processing plant along with other required amenities is also one of the activities. **The model of operation of this project will be BOT (Build, Operate and Transfer) basis.**

Buckwheat being a crop which is perfectly suited and grown in the state has a very good potential for export market. The flour and the kernels are widely used for food purpose in other parts of the world. When the issue of export comes into picture, particularly in food grains, it is always beneficial or profitable to do so in the processed form rather than the grains.

The processing unit that is to be established will have a processing capacity of 500.00 kilograms of Buckwheat per hour and shall be established at **Wholesale Regulated Market Complex, Rangpo, East Sikkim**. This will provide the most essential facility for the farmers of the state in the larger growing regions of the state to avail the benefit of processing in order to fetch good financial returns. Land for Establishment of the unit shall be provided by the department without any encumbrance.

## **1.2 Eligibility of Bidders**

To be eligible for pre-qualification and short-listing, an applicant shall fulfill the following conditions of eligibility:

1. Should have the Certificate of Incorporation/ Registration of the Firm.
2. Should have a valid Trade License issued by the state Government/Any other government agency in India.
3. The Bidder must have valid VAT registration, a copy of which should be enclosed.
4. Total value of Work completed in last two years should be more than Rs. 7.00 crore (should be supported by the Supply Order/payment receipt, etc, if any)
5. Overall Average Annual Turnover of the Company/Firm/Corporation in the last two financial years should be more than Rs. 7.00 crore. (This must be the individual Company's turnover and not that of any group of Companies). (A summarized sheet of turnover certified by registered CA should be compulsorily enclosed)
6. Company/Firm should have experience in supply of Food Processing Machinery & Commissioning of Food Processing Plant as well as civil works.
7. The bidder should have direct authorization from the Original Equipment Manufacturers (OEM) for selling and supporting the components offer under this project
8. The bidder should be willing to run the unit after completion for at least 2(two) years or till it is taken over by any FPO/SHG or any other organizations approved by the State government. The running cost during this period shall be recovered from service charge collected on processing of buckwheat. A written Undertaking/MOU with seal and sign to this effect is to be submitted.

## **1.3 Place of opening of bids:**

Krishi Bhawan, Tadong,  
East Sikkim  
Pin – 737102

## **1.4 Address for communication:**

Office of the Superintending Engineer,  
FS&AD Department,  
Farmers' Hostel, ICAR Complex,  
Tadong, Sikkim 737102

## 1.5 Schedule of Bidding Process

The following schedule will be adhered to:

1.	Hosting of Bid document on FSADD website or obtaining copy of bid document	: Day 1
2	Document Sale start date	: Day 1
3	Document Sale end date	: Day 21
4	Last date and time for submission of Bid	: Day 28
5	Bid opening date and time	
	a) Technical Bid	: Day 28 1.00 p.m.
	b) Financial Bid	: Shall be informed to the qualifying bidders.
6	Letter of Award (LoA)	Within fifteen days of bid opening
7	Validity of bids	90 days from last date of bid submission

## 1.6 Evaluation of proposals

### 1.6.1 Technical Bid evaluation

a. The Technical Proposals will be evaluated by a Committee constituted for this purpose and, in the first instance, be examined to ascertain fulfillment of eligibility criteria and submission of required documents.

b. Technical Proposals received will be opened in the presence of authorized representatives of the Agencies who have submitted proposals on a date /time specified by Tender Committee.

c. Only the Bidders who meet all the requirements as specified in the Eligibility Criteria as in Clause 1.2 of this document will be shortlisted for opening of technical and financial bids.

d. The evaluation committee will evaluate the Technical Proposals on the basis of the technical evaluation criterion as provided below:

#	Criteria	Description	Max Points
1	Past Experience of the responding firm	Completion certificate of Food Processing Industry including civil work. 03 (three) marks for each completed project of Processing Industry, maximum 12 marks.	12
2	Presence in Sikkim	A registered branch/company in Sikkim	8
		Outside of Sikkim	4
2	Date of Establishment	Up to 05 (Five)years	4
		Over 05 (Five) years	8
3	Technical Presentation	Presentation of overall implementation and support strategy, The overall project management approach adopted including work plan and support strategy	6
4	Detailed Project Plan	Detail & authentic project plan needs to be satisfactory enough.	8
5	Technical specifications of the machines & components being offered	Make, model and detail specification of item offered.	10
6	Promotion of Local Representation	Bidder is of Sikkimese origin (Attested Sikkim Subject or COI to be submitted).	8
		If outsider	4
7	Technical Manpower	Bidder should have experience Agricultural Engineer/Food Technologist/Mechanical engineer in their payroll. Supporting documents to be enclosed.	5
8	Financial Information	Financial Position of the bidder (Minimum average Turnover of the bidder should be above seven crore rupees for the past two year mandatory). Certificate endorsed by chartered Accountant for last two financial year to be enclosed.	15
9	Quality of performance/Recognition	State level recognition from Government Organization/department.	5
10	Level of Processing	Primary processing	5
		Secondary processing	10
		Tertiary processing	15



### 1.6.2 Financial Bid Evaluation

- a. The Financial Bids of technically qualified bidders (i.e. above 70 marks) will be opened on the prescribed date in the presence of bidders or their authorized representatives.
- b. Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.**
- c. The bid price Quoted should be FOR destination and will include all taxes, service charges, cost of testing, inspection, erection and installation etc. No additional charges would be applicable and levies shall be in Indian Rupees and mentioned separately.
- d. Errors & Rectification: Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail.
- e. If there is no price quoted for certain material or service, the bid shall be declared as disqualified.
- f. In the event that there are 2 or more bidders having the same value in the financial bid, the bidder securing the highest technical score will be adjudicated as the best responsive bid or Most Responsive bid for award of the Project.**

## CHAPTER 2: INSTRUCTIONS TO BIDDERS

### 2.1 Instruction to Bidders:

The Bidder is expected to examine all instructions, forms, terms and specifications as mentioned in the Tender document. Failure to furnish all information required by the Tender Document or submission of a bid not substantially responsive to the Bid Document in every respect will be at the Bidder's risk and is likely to result in outright rejection of the Tender.

### 2.2 Scope of the Assignment:

The Cost of the project put to tender is Rs.3.37 crore for both Civil and Mechanical works. The cost put to tender excludes contingency cost, consultancy cost and the cost of Mobility Vehicle. The Scope of Work /Assignment is as follows:

- **Supply of different kinds of machines those are used in various stages of Buckwheat processing unit such as Cleaning, de stoning, grading, hulling/shelling, roasting/ milling. Details regarding technical specifications, type, size, plant layout and cost estimates for equipments/ machineries etc are given at Appendix 1, better specifications will score more in technical bidding.**
  - **Installation of the machines & other components to set up an Automatic Buckwheat processing plant.**  
**Input: Raw harvested buckwheat**  
**Output            1: Buckwheat flour.            2: Buckwheat Kernels.**
  - **Construction of appropriate Plant shed needed for such Plant & machineries including one unit staff quarter, water supply and sanitation.**
- a) **Main Plant: The structure shall be constructed using Pre-Fabricated material with M.S. claddings, Galvalume sheet roofing, Cement concrete flooring and adequate protective works. The Size of the buildings should not be less than 24.50 length x 12.20 breadth x 7.50 height in meters (internal). Detailed cost estimate enclosed at Appendix 2.**
- b) **Staff Quarter: This structure should be RCC (Reinforced Cement Concrete) framed with brick in superstructure and GCI sheet roofing. The plinth area of the building should not be less than 105.00 square meters with all other required amenities. Detailed cost estimate enclosed at Appendix 3.**

- **Electrification to be provided as per the necessity of the Plant.**
- **Power backups in the form of DG set to be provided in order to run the plant successfully during cut in power supply.**

### **2.3 Consortium:**

The bidder may form a consortium of Machinery manufacturers/authorized dealer/supplier willing to provide complete solution to execute the total project. Such consortium/tie ups of two or more firms are also permitted to bid in the project.

In case the Applicant proposes to apply as a group of entities (the " Consortium"), coming together to implement the proposal under an existing binding agreement in the form of a Consortium Agreement.

- Such consortium Agreement should clearly define the roles & responsibilities of individual members and their inter relationship, particularly with references to financial, technical and operating obligation of the individual members for the proposal.
- Such consortium Agreement should clearly specifies one member as lead Member who shall be responsible for the execution of the proposal and respective obligation as may be agreed between Government.
- Such consortium Agreement should be for a minimum of scheme period or till the proposed project is executed and handed over, whichever is later.
- Such consortium should clearly specify that all consortium members shall be jointly and severally liable for the execution of the Proposal in accordance with the terms and conditions of the agreement(s) as may be executed with Government.
- A copy of Consortium Agreement is required to be submitted along with the proposal, failing which proposal shall be considered incomplete.

## **2.4 Clarification on Tender**

A prospective Bidder requiring any clarification of the Tender Documents may contact Superintending Engineer, FS&ADD in writing or by email at [buckwheatfsadd@gmail.com](mailto:buckwheatfsadd@gmail.com).

No verbal enquiry shall be entertained.

## **2.5 Cost of tender Document**

The non refundable cost of the Tender document is Rs. 15,000/- (Rupees Fifteen thousand only) and should be in the form of Demand Draft addressed to Additional Director, Accounts, FS&ADD. The Bidder downloading the Tender Document from the website should invariably submit the cost of the Tender form dated within the Document Sale End date in a separate envelope at the time of submission of Tender Document. Any tender submitted without the Cost of Tender form/Document would be summarily rejected.

## **2.6 Period of Validity of Bids**

Bids shall remain valid for 90 (Ninety) days after the deadline for submission of bids. A bid valid for a shorter period shall be rejected as non-responsive.

## **2.7 Submission of Bids**

The Bidders shall seal the Bids in three envelopes and mark them as “Pre qualifying Document” as specified in 1.2 (Eligibility of Bidders), “Technical Bid” and “Financial Bid”. This must be clearly mentioned in bold letters on top of the envelope.

Both the sealed envelopes should be put into an outer envelope and sealed. The outer envelope shall be super-scribed “**Supply, installation, commissioning of Integrated Automatic Buckwheat Processing plant**” having 500 kg/hour capacity with the due date for submission. The Bottom Left corner of the outer cover should carry the full name, address, telephone nos., e-mail ID etc. of the agency submitting the Proposal.

### **2.7.1 Technical Bid**

The technical bid must contain the following documents

- a) Technical proposal submission letter in the prescribed format (**Appendix- 4**)
- b) Technical Bid in the prescribed format (**Appendix- 5**) along with enclosures

The Financial Bids of Bidders who meet the minimum technical qualification only shall be opened.

### **2.7.2 Financial Bid**

The financial bid should contain the following documents:

- a) Financial proposal submission letter be submitted in prescribed format (**Appendix– 6**).
- b) The outer envelope containing the sealed Technical and Financial Proposals should be addressed to:

Office of the Superintending Engineer,  
FS&AD Department,  
Farmers' Hostel, ICAR Complex,  
Tadong, Sikkim 737102

If the envelopes are not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Application and consequent losses, if any, suffered by the Applicant.

### **2.8 Deadline for Submission of Bids**

Bids must be received by no later than the time and date specified in the Tender document. In the event of the specified date for the submission of Bids being declared a holiday for Sikkim, the Bids will be received up to the appointed time on the next working day.

The Procurer may at its discretion, extend this deadline for submission of bids by amending the bid documents.

## **2.9 Late Bids**

Any bid received after the deadline for submission of bids prescribed by the Procurer will be rejected and/or returned unopened to the Bidder.

## **2.10 Right to Accept or reject any or all Applications/Bids**

Notwithstanding anything contained in this tender Document, the FS&AD Department reserves the right to accept or reject any Application/Bid and to annul the Bidding Process and reject all Applications/ Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that the FS&AD Department rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.

The FS&AD Department reserves the right to reject any Application and/ or Bid if:

- a. At any time, a material misrepresentation is made or uncovered, or
- b. The Applicant does not provide, within the time specified by the Department, the supplemental information sought by the department for evaluation of the Application.

## **2.11 Award of Contract and Security Deposit**

Tender must be accompanied by Earnest Money Deposit (EMD) of Rs.9,00,000/- (Indian Rupees Nine Lakh) only in favor of the Superintending Engineer, FS&ADD Department in the form of Demand Draft/ FDR/TDR.

The Earnest Money Deposit of the successful bidder shall be retained till completion and handing over of the work. The Earnest Money Deposits of the unsuccessful bidders shall be returned back within 45 days.

## **2.12 Ownership of information:**

The ownership of all the information generated will at all time rest with FS&AD department and the bidders will have no proprietary or other rights in respect of the same.

### **2.13 Termination:**

'FS&AD Department' can terminate the Contract of the agency at any time by giving one month notice. In such an occurrence FS&AD Department' shall give a written advance notice before terminating the Contract of Agency.

### **2.14 Mode of Release of Payments:**

The payments for the works shall be made in three installments in the ratio of 40:40:20, purely depending on the progress of work. Advance payment shall be considered only in case of procurement of machinery and equipment against the production of equivalent Bank Guarantee valid for 18 (eighteen) months.

### **2.15 Force de Majeure:**

Neither party will be liable in respect of failure to fulfill its obligations, if the said failure is entirely due to Acts of God, Governmental restrictions or instructions, natural calamities or catastrophe, epidemics or disturbances in the country. *Force de Majeure* shall not include (i) any event which is caused by the negligence or intentional action of a Party or by or of such Party's agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected both to take into account at the time of being assigned the work, and avoid or overcome with utmost persistent effort in the carrying out of its obligations hereunder.

A Party affected by an event of *Force de Majeure* shall immediately notify the other Party of such event, providing sufficient and satisfactory evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.

### **2.16 Arbitration:**

Venue of arbitration will be Gangtok, Sikkim and will be governed by provisions of the Indian Arbitration & Reconciliation Act. Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled

by arbitration in accordance with the Rules of Arbitration of the Indian Council of Arbitration and the award made in pursuance thereof shall be binding on the parties.

**2.17 WARRANTY:** The items should be covered by warranty as per the manufacturers terms & period.

**2.18 IMPLEMENTATION SCHEDULE AND PENALTY:**

2.18.1 The implementation schedule for supply, erection and commissioning (Project Execution) should be completed within 12 (Twelve) months from the date of award of work. No extension of time for implementation of the project will be given. In exceptional circumstances, for the reasons beyond control (Force de Majeure), the implementation period may be extended with the approval of the Government.

2.18.2 The contractor(s) shall make all possible efforts to complete the project as per the stipulated time period mentioned in the Letter of Award (LoA). In case of non adherence to the stipulated timelines, except in case of Force de majeure or reasons beyond the control of the contractor(s), the Government may consider imposing penalty as prescribed under the prevalent SFR (Sikkim Financial Rules) and the Code and Manuals of SPWD (Sikkim Public Works Department).

2.18.3 The assets created wholly or substantially out of the Government Fund shall not be disposed-off or encumbered or utilized for purposes other than those for which the fund has been sanctioned, without obtaining the prior approval of the Government. In case of non- compliance as stated above, the conditions laid down in the MoU shall be final and binding.



The Suggestive specifications of the machines/equipments are as under

**1. Automatic Screening Unit OR Grading Unit**

CAPACITY: 500 kg / hour (Minimum)

Area needed: L 12m x B 2m x H 3M

Power needed: 4 KW (440 volt)

This machine can calibrate seeds to 7—8 grades (sizes). Grading of seeds is a necessity for proper shelling of seeds. Then de-shell seeds separately by grades in shelling machine. Proper shelling cannot be possible if the buckwheat is not graded, as the Sheller applies disc shelling technique which can be adjusted for processing different sizes of buckwheat.

**2. Automatic Shelling Unit**

CAPACITY: 250 kg / hour (kernels output) (Minimum)

Area needed: L 6m x B 3m x H 4M

Power needed: 7 KW (440 volt)

The machine can de-shell buckwheat and separate shells from kernels. It applies dry method – seeds are shelled directly with no thermal-treatment involved. It helps in retaining original taste & color of the buckwheat kernel.

The kernels can be further roasted in a roasting unit & consumed as cereals OR milled in a milling unit to obtain Buckwheat flour.

**3. Roasting Unit**

CAPACITY: 250 kg / hour (Minimum)

Area needed: L 3m x B 2.5m x H 2M

Power needed: for heating 65 KW, for transmission 2.5 KW.

It is used for drying & roasting of buckwheat kernels.

#### 4. Automatic Milling Unit (Buckwheat & Wheat)

CAPACITY: 500 kg / hour (flour output) (Minimum)

Area needed: L 12m x B 5m x H 5M

Power needed: 50 KW (440 volt)

It is a complex milling system of 8 kinds of machines to obtain best quality of flour from buckwheat kernels. The machine should produce bran, flour grade 1 & flour grade 2 in three separate collection bins. The unit should be designed to produce Buckwheat kernels and flour.

#### 5. Packaging Unit

CAPACITY: 500 kg / hour (flour output) (Minimum)


Area needed: L 4m x B 3m x H 3M

Power needed: 12 KW (440 volt)

The packaging unit should have required packing speed, weighing mechanism, bagging, stretch wrapping, bulk packing, pouch sealing equipped with bagging scale.

#### **Buckwheat Processing Unit - Equipments List**

##### **Milling System Machines**

NO	Name	Suggestive Specifications and Types	Unit	Qty	Remarks	Single Production	Suggestive Design
1	Milling machine	225	set	2	11kw	1200 kg/h	

2	Shelling machine	FS3x7	set	1			
3	High Efficiency Plane Screen	FJ83-12x2	set	1	motor in grade 6 1.5kw×2		
4	High Pressure Fan	T6-30	set	1	5.5kw		
5	Air Seal		pcs	4			
6	Power Cabinet		set	2			

### Cleaning System Machines

NO	Name	Suggestive Specifications and Types	Unit	Qty	Remarks	Single Production	Suggestive design
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1	Bucket Elevator	TG2/11	pcs	3	0.75kw	≥2000kg/h	
2	Magnetic separator	2×120	set	2			
3	High Efficiency Vibrating Sieve	LZ6	set	1			
4	De-fiber Machine	FS3	set	2		1000 kg/h	
5	Gravity Classification Stoner	SF6	set	1	11kw	2000 kg/h	
6	Stronger Damping Water	MS4	set	1			
7	Low Pressure Fan	T4-72	set	2			

## Self-regulation vibrating sieve

Self-regulating vibrating sieve is used for separating impurities of large, medium and little size in grains. It is to be used for preliminary cleaning. The machine should be simple in structure with smooth operation, low noise and consumption and have good cleaning result etc.

### Suggestive Technical Specifications

Model	LZ6
Screen surface size(cm)	60*100
Output(t/h)	Preliminary cleaning10
	Cleaning5
Screen surface angle of slope(°)	6
Amplitude(mm)	5
Power(kw)	0.25*2
Weight (kg)	450
Speed of rotation motor(rpm)	920
Air suction quantity(m <sup>3</sup> /h)	1800
Wind pressure(Kpa)	0.5
Overall size (mm)	1760*1160*1700

## Gravity Classification De - Stoner

This machine is mainly used for crude grain primary cleaning and getting rid of impurities or stones. The machine should have the following features as follows: high-efficiency, good clearing result, low noises, no dust seen, convenient operation and maintenance.

### Suggestive Technical Specifications

Model	SF6
Screen surface size(cm)	60
Output(t/h)	5-7
Screen surface angle of slope(°)	5-9
Power(kw)	0.25*2
Weight (kg)	280
Wind pressure(pa)	< 980
Overall size (mm)	1450*880*1800

## De-fiber Machine

This machine has to be a perfect buckwheat & wheat scourer and cleaning equipment, adopting trapezoid stainless steel mesh, matching with good quality carbon steel board, the first and second procedure can separate mud and wheat hair, broken or deteriorated kernel. Small impurities such as mud should be removed through outlet. Matched with cleaning system, this scourer should be capable of removing dust on wheat promptly.

### Suggestive Technical Details

Model	FS3
Output(t/h)	1
Power(kw)	2
Weight (kg)	280
Shape size(mm)	1200*600*1100

### Shelling Machine

This equipment has to be mainly used as bran scourer and brusher. There has to be a material classifying sieve which can be substituted for riddle and classification of high plansifter, to reduce its load and simplify procedure.

### Suggestive Technical Details

Model	FS3x7
Output(t/h)	1
Power(kw)	1.25
Weight (kg)	240
Overall size (mm)	1300*600*1200

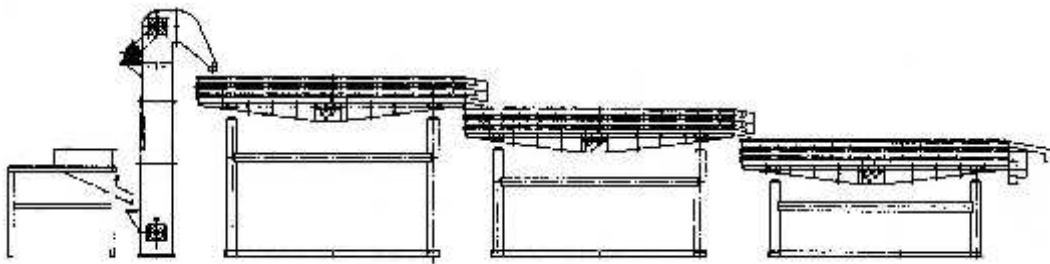
### High Efficiency Plane Screen

It is efficient sifting equipment for inspecting buckwheat & wheat flour before packing in flour factories. It can also be used for flour processing and classifying.

### **Suggestive Technical Details**

Model	FJ83-12x2
Speed of main shaft(rpm)	245
Rotary diameter(mm)	45-50
Screening area(m <sup>2</sup> )	11
Power(kw)	1.5
Overall size (mm)	2200*1450*2000

### **Automatic Screening or Grading Unit**



This machine should be able to calibrate the seeds to seven grades.

### **Automatic Roasting Unit**

This machine shall be mainly used for drying Buckwheat and roasting of the kernels that can be consumed as snacks.

### **Suggestive Technical Specifications:**

Heating Power : 65 Kw

Transmission Power : 2.5 Kw

Capacity : 250 kg/hr

Area : L 3m x B 2.5m x H 1.75m

### **Automatic Shelling Unit**

The machine has to de-shell buckwheat and separate shells from kernels. The coarse bran should also be separated from kernels during this process. It should apply dry method (seeds to be shelled directly with no thermal-treatment involved.)



### **Suggestive Technical Specifications**

Power: 7KW

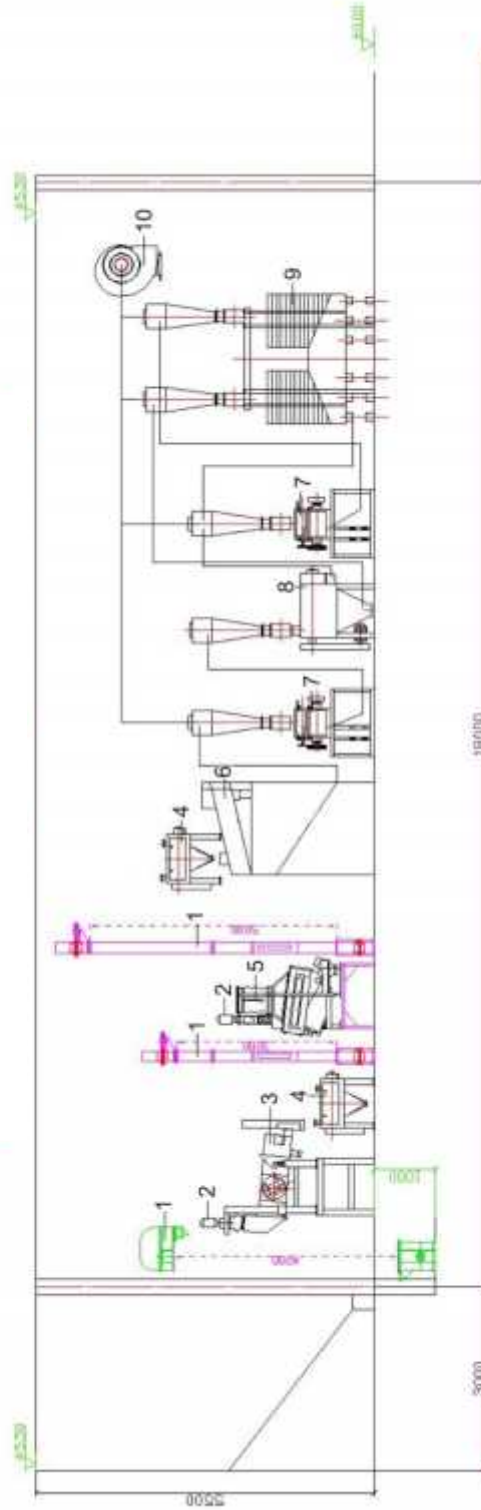
Output: 200-250kg/hour min.

Yield of kernels: 70-75%

Un-shelled seeds in kernels: 0.5% max.

Broken in shells: 0.5% max.

## Automatic Buckwheat & Wheat Processing Line



### Prime Components

- 1.) Bucket Elevator (3 nos.)
- 2.) Magnetic Separators (2 nos.)
- 3.) High efficiency Vibrating sieve (1 nos.)
- 4.) De-fiber machine (2 nos.)
- 5.) Gravity classification stoner (1 nos.)
- 6.) Stronger damping water (1 nos.)
- 7.) Milling Machines (2 nos.)
- 8.) Shelling machine (1 nos.)
- 9.) High-efficiency plane screen (1 nos.)
- 10.) Fan

### Cleaning workshop process:

Raw buckwheat / wheat — elevator machine — magnetic separator — buckwheat high efficiency vibrating sieve machine — De-fiber machine — elevator — gravity classification Stoner machine — low pressure fan with dust — elevator — buckwheat De-fiber machine — stronger damping water machine

### Milling workshop process:

Fan elevator machine — buckwheat Bin — milling — shelling machine — (one )screen of core — core material milling — (one)screen of powder — buckwheat / wheat flour

### Cost estimates for Equipments/ machineries/ other facilities

S. No.	2.17 Name of machines	Qty.	Estd Cost (Lakhs)	Remarks
1.	Automatic Buckwheat milling machine	1 line	86.00	Complete with installation charges
2	Automatic grading machine	1 No.	44.00	Complete with VB conveyer/ accessories & installation charges
3	Automatic roasting machine	1 No.	10.00	
4	Automatic shelling machine	1 no	44.00	
9	Mobility Vehicle	1 no	8.50	
10	Electrical work i/c genset	1 unit	18.27	
11	<b>Total (X)</b>		<b>210.77</b>	

### Summary of project cost

S. No.	Particulars	Cost, Rs in lakhs
1.	Plant machinery and equipment	210.77
2.	Building and civil works	139.23
3.	Cost of Land	-
	<b>Total</b>	<b>350.00</b>

**Appendix- 2**

**SCHEDULE OF QUANTITIES AND RATE FOR THE WORK CONSTRUCTION OF  
BUCKWHEAT PROCESSING UNIT AT RANGPO E.SIKKIM**

Srl no	Item	Quantity	Unit	Rate (Rs)
1	Hill Cutting I Mixed soil/ Slip clearance	1	JOB	30000/JOB
2	Excavation in foundation trenches in mixed soil all complete	171.20	cum	164.74/cum
3	P/L H.P stone soling with clean hard selected stones all complete	65.66	cum	464.56/cum
4	P/L in position 1:3:6 cement concrete (20mm and down) i/c compacting curring etc all complete.	49.25	cum	3821.97/cum
5	P/L plum concrete in 1:2:4c.c (1 cement , 2 coarse sand 4 clean hard graded stone chips with 20mm to 25mm nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm i/c shuttering, compacting and curing, complete.	289.76	cum	3441.42/cum
6	S/P/F/F of pre-fabricated structure with MS cladding etc all complete	3198.74	Sft	2200/sft

7	P/L 40mm thick 1:2:4 CC flooring with glass strips all complete	446.28	sqm	295.73/sqm
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8	Providing box drain of 30 cm (ht) x 45 cm (width) internal dimension with 1:2:4 Plum concrete (20mm & down) in side walls thickness of 23 cm (hill side) and 30 cm (road side) and 1:3:6 (20 mm & down) complete, as per the direction of the Engineer in Charge.	128.00	rmt	1259.9/rmt
9	Carriage of stones and sand within 20 km radius			60513.00
10	Carriage of stock materials from 50km radius			469223.00
11	Cost escalation on SOR 2012			1370167.00
12	CONTINGENCY			182689.00
13	Water supply			685083.00
14	Consultancy			182689.00
15	Electrification			1826889.00

**SCHEDULE OF QUANTITIES AND RATE FOR THE WORK CONSTRUCTION OF CLASS**  
**II QUARTER AT BUCKWHEAT PROCESSING UNIT AT RANGPO E.SIKKIM**

Srl no	Item	Quantity	Rate (Rs)
1	Excavation in foundation trenches in mixed soil all complete	116.44	164.74/cum
2	P/L H.P stone soling with clean hard selected stones all complete	29.20	464.56/cum
3	P/L in position 1:3:6 cement concrete (20mm and down) i/c compacting curring etc all complete.	19.54	3822/cum
4	P/Fixing& removing form work		
	a) square columns	44.20	568/sqm
	b) Column base	7.80	429.40/sqm
	c) Slab	43.92	568/sqm
	d) Beams/lintel/chajja	116.46	415.46/sqm
5	P/L in position 1:2:4 (1cement, 2 coarse sand, 4 graded stone aggregate of 20mm nominal size) of R:C:C excluding the cost of formwork, finishing and reinforcements but i/c curing etc all complete.	29.20	4849.10/cum
6	Supplying,Bending & placing in position mild steel (6mm dia)i/c cutting & straitening i/ cost of binding wire all comp.	5.69	6728.3/ctl
7	Supplying,Bending & placing in position tor steel reinforcement in all R.C.C works i/c cost	32.26	6728.3/ctl

	of binding wire all comp.		
8	P/L plum concrete in 1:2:4 c.c (1 cement , 2 coarse sand 4 clean hard graded stone chips with 20mm to 25mm nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm i/c shuttering, compacting and curing, complete.	57.85	3441.4/cum
9	P/L first class brickwork in half brick in S.structure of standard size bricks with 1:4 CM i/c carriage of bricks upto w/s and curing	134.81	639.14/sqm
10	P/L 12mm thick cement plaster in 1:4 mix C.M, i/c curring etc all comp	386.90	116.33/sqm
11	P/L 40 mm th. 1:2:4 mix flooring finished with floating coat of neat cement all copmlete.	96.49	295.73/sqm
12	S/F/F & fixing steel tubular trusses including cutting,hoisting,fixing in position and applying a priming coat of approved steel primer, welded and bolted including special	3391.00	65.58/kg
13	P/F/F dressed local wood in all types of frames all complete.	0.339	33170/cum

14	P/F/F of waterproof flush door shutters all complete.	17.99	2373.5/sqm
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15	P/F/F steel section windows etc all complete	582.37	83.43/kg
16	P& applying priming coat with ready mixed pink on wood work i/c preparing of the surface by through cleaning & sand papering etc all complete.	LS	5000/-
17	Providing, fitting, fixing of 24 BWG Pre-painted HULAS sheet roofing with lapping of 150mm (two corrugation) with G.I. hooks, bolts and nut 8mm dia with bitumen, GI limpet	201.61	942.52
18	Providing, fitting and fixing 23cm deep 24BWG Pre-painted HULAS. sheet eaves board including (50mmx25mm) dressed sal timber beading and M.S. Rod brackets all complete.	45.00	470.83/rmt
19	P/F/F ridges of 60 cm overall width of plain G.I sheet fixed with G.I, J or L hook bolts and nuts 8mm dia limphets, bitumen washers complete	45.00	535.1/rmt
20	Providing and white washing three or more coats with lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc on new surface complete.	386.90	19.11/sqm
21	Providing & distempering washable distemper on new surface two or more coats of required shade to give an even and uniform shade i/c priming coat of whitening to give an	386.90	53.47/sqm



22	Mixed filling inside of plinth in 23cm layers consolidated to 15cm i/c watering ramming all complete	18.72	126.44/cum
23	Providing U-shaped drain of (23 x 23)cm internal dimension and side walls thickness of 23cm and 30 cm with standard specification including providing & laying guard stones as per direction of engineer incharge	60	694.29/rmt
24	Providing fitting and fixing of doors and window fittings all complete.	LS	6000/-
25	Carriage of stock materials to worksite from within 50km. Headload	359.14	66.23/ctl
25ii	Overhaulage	35.91	153.58/MT
25iii	Carriage	35.91	5.57/MT
26	Carriage of non stock materials from within 25 km radius Over haulage	216.47	87/cum
27	Carriage	457.08	5.57/MT
28	Cost Escalation 20%		359746/-
29	Contingency		43170/-
30	Electrification		215848/-

**TECHNICAL PROPOSAL SUBMISSION LETTER**

To

The Superintending Engineer,  
FS & AD Department,  
Farmers' Hostel, ICAR Complex,  
Tadong, Sikkim 737102

**Subject: Supply, installation, commissioning of Integrated Automatic  
Buckwheat processing plant**

Sir,

I/We, the undersigned, offer to undertake the assignment of "supply, installation, commissioning of automatic buckwheat Processing plant having 500kg/hour capacity" in accordance with your Tender Document No. .... dated ..... We hereby submit our Technical Proposal for the same.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

We understand you are not bound to accept any Proposal you receive.

Yours Sincerely,

Signature:

Name & Designation of the authorized Signatory:

Name of Firm:

Address:

**FORMAT FOR SUBMISSION OF TECHNICAL PROPOSAL**

**A. General Information**

1. Name of agency:
2. Nature of agency:
3. Full Address:
4. Contact details (Tel no/Fax/E-mail):
5. Name of contact person:

**B. Compliance to eligibility for Bidding**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Compliance (Yes/No)</b>
1	Certificate of Incorporation/ Registration of the Firm.	
2	Trade License issued by the Government	
3	VAT registration Certificate.	
4	Total Work orders or Supply orders executed in last two years should be more than Rs. 7.00 crore (should be supported by the Supply Order/payment receipt, etc, if any)	
5	Overall Average Annual Turnover of the Company/Firm/Corporation in the last two financial years should be more than Rs. 7.00 crore. (This must be the individual Company's turnover and not that of any group of Companies). (A summarized sheet of turnover certified by registered CA should be compulsorily enclosed)	
6	Company/firm experience in supply of Food Processing Machinery & Commissioning of Food processing Plant (Work order /completion certificate to be enclosed )	
7	The bidder should have direct authorization from the original Equipment Manufacturers for selling and supporting the component offer under this project.	
8	Willingness to run the unit for minimum two years after completion.	

**C. List of Documents Enclosed (to be specified by the Bidder)**

(Signature of the firm with designation and Official Seal)

Dated:\_\_\_\_\_

**FINANCIAL PROPOSAL SUBMISSION LETTER**

To

The Superintending Engineer,  
FS & AD Department,  
Farmers' Hostel, ICAR Complex,  
Tadong, Sikkim 737102

**Subject: Supply, installation, commissioning of Integrated Automatic Buckwheat processing plant.**

Sir,

We, the undersigned, offer to undertake the assignment of **“Supply, installation, commissioning of Integrated Automatic Buckwheat processing plant** having 500kg/hour capacity in accordance with your Tender Document No .....dated ..... and our Technical Proposal.

Our Financial Bid shall be binding upon us, up to completion of the period of the contract as specified in the Tender Document.

We understand you are not bound to accept any Proposal you receive.

Yours Sincerely,

Signature:

Name & title of the authorized signatory:

Name of Firm:

Address: