

**VAISHAL PATLIPUTRA DUGDH UTPADAK SAHKARI SANGH LTD**  
**PATNA DAIRY PROJECT**

Feeder Balancing Dairy Complex, Phulwarisharif, Patna – 801505  
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PDP: PUR:FBD

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Dated 16.05.2024

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Dear sir,

We are interested in purchasing of the following item. In case you can supply the same, you may send your quotation in sealed cover addressed to the Managing Director address given above superscribing on the top of the envelop quotation **Silage Baler Cum Wrapper machine and Chopper Loader** so as to reached on or before **15.06.2024**.

Suppliers are mentioned our Enquiry nos and date on his quotation or on the top of Envelop necessary

All rates must be F.O.R. – FBD, Patna on door delivery basis.

S.No.	Item	Specification	Qty.required
1	<b>Silage Baler Machine (Low –cost silage making at DCS Level)</b>	Details requirement/ Specification as enclosed page I,II & III	01 nos
2	<b>Chopper Loader</b>	As per specification enclosed – Annexure-I	01 nos

Thanking you



Manager (MM)

### Detailed Specifications of the Equipments:

#### **Scope of Work:**

The work includes supply and commissioning of Baler cum Wrapper for Green Fodder Silage at Chapra Milk Chilling Plant Premises, Saran, Bihar. The equipments along with components should be commissioned and demonstrated for the purpose of smooth operation by the user satisfactorily.

#### **Warranty:**

The equipments shall be warranted for one year comprehensive warranty from the date of handing over the equipment(s) after satisfactory commissioning. The supplier should resolve the issue(s) within a maximum time of three days from the date of complaint; else, the purchaser will have the right to forfeit the security amount.

#### **Maintenance Service:**

The bidder shall provide free services/maintenance services as per requirement within the warranty period.

#### **Training:**

Comprehensive training shall be provided to the operators/staff for all operational aspects of the equipments.

### Technical Specification for Baler cum Wrapper for Green Fodder Silage. Qty-01.

#### **Functional Requirements**

- Automatic Corn Silage Baler and Wrapper Machine should be used to press the chaffed green corn pieces in a Round Shape Silage Bale. The compression will reduce air content in it. After compression, the bale will be wrapped with the thin polypropylene film, so as to protect the compressed material from being in contact with air. The compressed material will be anaerobically decomposed to form corn silage.
- **Bale Size:** 50kg to 80kg
- **Capacity :** Min 25 to 30 Bales/hour
- **Compression chamber:** The machine should be suitable to hydraulically press the chaffed green corn pieces and form round shape bale of 50 kg to 80 kg weight. This should be a complete machine equipped with sensor and alarm system. The machine should be strong and durable, less vibration, low labor cost, high efficiency best silage baler machine.
- **Wrapper Machine:** Automatic wrapping should be done. It should automatically pack a plastic bar as a spherical ball, stretched film high speed round shape packing.
- **Conveyor:** The machine should be equipped with suitable high speed conveyor to transport fodder pieces into compression chamber.
- **Alarm System:** Suitable alarm system to indicate-when the baling hopper is filled with corn, it should alarm.
- **Operation:** The complete machine will be run by a tractor of suitable capacity or electric power.
- **Frame:** The machine should be mounted on a sturdy/heavy M.S. frame properly painted and fitted with suitable tyre for easy movement of the machine.

#### **Design requirements:**

- Capacity of feeding hopper to be 500-1000 kg.



- The machine to be equipped with hydraulic & mechanical operational system.
- Chassis having adjustment to fix external wrapper and hydraulic & electric motor.
- The machine should ensure proper compression to achieve desired quality of silage. Minimum compaction density should be 600 to 800 kg/m<sup>3</sup>.
- The bale production capacity of machine to be minimum 25-30 nos. in 50 to 80 kg bale weight.
- Two stages wrapping internal & external provided for more compaction.
- The first stage of wrapping happens inside the internal compression chamber.
- External wrapping arrangement should be strong & sturdy.
- External wrapper consists of two rollers & film holder.
- The bale rotates with the rollers simultaneously while external wrapping is done.
- Hydraulic lever to be provided for auto dispatching the wrapped bale from wrapping unit.
- Tyres to be provided for transportation of machine.
- The machine should work 30-40 hp electric motor.
- Matching Starter with MCB, indicators, single phasing preventer included. All switch gears to be L&T, Siemens, ABB. **(Main power supply switch & cable is not in the scope of supplier but details to be provided to the buyer)**.
- Conveyor to be chain type/Belt type to transfer chaffed material from hopper to bale chamber.
- All required accessories should be provided with machine.
- Gears and shafts/other drives of the equipment should be smooth in functioning and provisioned for lubrication.
- Baler to be made of high strength M.S. material, suitably corrosion protected with higher standards of workmanship and painting.
- The equipment and functioning/operation should be safe for the operator with minimal wastage of feed stuffs.
- PTO shafts with yoke and safety shields; shear bolt for over load protections to be provided.
- A hood that encloses the hydraulic and electric systems to be provided.
- Note – All the accessories required for the successful installation and commissioning of the equipment should be made part of standard equipment.
- Top quality finish with corrosion resistant painting.
- Minimum one year warranty included.
- Wrapping film (UV protected) quantity required for wrapping of 8000 bales or above, should be provided with machine. Wrapping film should have the minimum width and thickness as per standard.

### Scope of work:

The scope of work includes supply, installation, testing and commissioning of the set at site complete in all respects including training to the operators. If required demo of the machines is to be arranged by the suppliers to the satisfaction of purchaser at some mutually agreed farm without any extra charges.

### General Specification

1. Strong & sturdy dual power mobile machine for preparing round bales of size 50 to 80 kg for silage purpose.
2. Expected output in the range 25-30 no bales per hour.
3. Machine driven by electric motor 30 to 40 HP/hydraulic system with suitable capacity of electric motor.
4. Mounted on strong tyres & chassis for quick transport.
5. Suitable to handle green chopped maize in moisture range 50 to 75%.
6. Appropriate oil storage & cooling arrangement provided for continuous operation.

7. Matching intake conveyor with hopper, drive set & all accessories provided.
8. All machines, components & assemblies to be in strong & sturdy design suitable for continuous run.
9. Top quality finish with long life paint.
10. Complete in all respects; ready to use version to be supplied.
11. General arrangement sketches provided indicating civil work requirement if any.

### Design requirement

1. Bale density guaranteed to be greater than 500kg/cu m.
2. Hydraulic drives used for compaction of chopped fodder as per need.
3. Baling/ compaction chamber exceeding 500 mm dia.
4. Internal as well as external wrapping mechanism provided with ejection systems.
5. Wrapping sheet to be stretched appropriately for guaranteed air tight bales.
6. Instrumentation, controls, automation providing using batteries, alternator, hydraulic pumps, valves, cylinders, switch gears with necessary alarms & indicators as per need of baling & wrapping operation in continuous mode.
7. Minimum one year warranty included.

### Electrical

1. All electrical works with panels, instruments, motor & drives included as per three phase power supply – 440 Volts, 50 hertz.
2. Motor to be Crompton/ABB/Siemens complete with all switch gears, indicators, hinges, doors, locks & fittings, main and control wiring, glands, jumpers, insulators, base frame, mountings, fittings, accessories etc as per latest electrical standards and rules prevailing in India. All cables, wires, push button stations, trays, clamps, pipes, conduits, thimbles, glands, lugs, dressing and support material for the above plant and machinery included complete in all respects as per need.
3. Makes of the starters and switch gears to be L&T/ Siemens/ ABB/ Cutler Hammer of approved specifically.
4. Cables and wires to be RPG Asian, Polycab, Finolex of approved specifically & shall be designed as per specific needs of the machines. Laying of cables to be in trays, pipes or trenches in a neat and clean manner i.e. well dressed as per need.
5. Electrical earthing for each load to be provided as per need. Test certificates as per need of local electrical norms to be supplied by the bidders. Electrical line diagram & local details for the complete plant to be submitted.

### Exclusion

1. Matching chaff cutter and Total mix ration mixers as per need of the machine are excluded.
2. Civil work if any is also excluded.
3. Matching incoming Armoured Cable of suitable size would be provided.

### Drawing and other details

1. All tools and tackles used for proper operation and maintenance of machine should be provided.
  2. Operation and maintenance manual to be provided.
  3. Circuit Diagram detailed working principle and other details should be provided.
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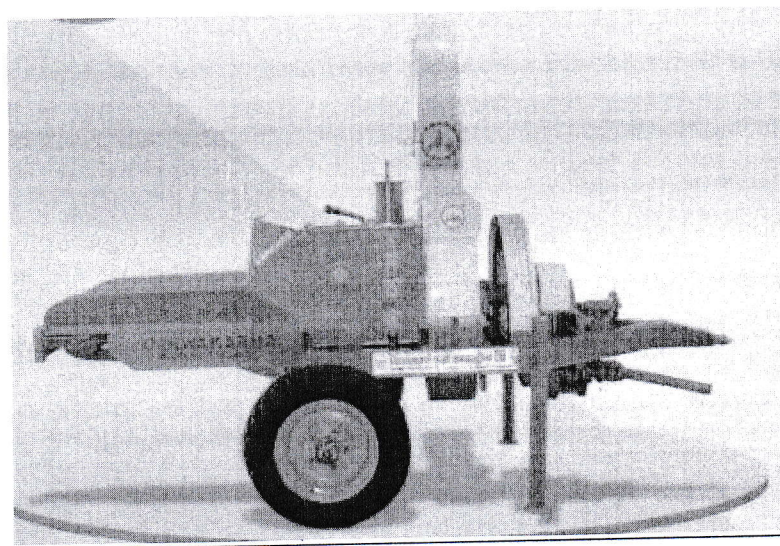
**Conveyor fed chaff cutter (Chopper loader)**

**Functional Requirements**

For chopping and blowing of fodder of field crops like sorghum, nappier, maize, sunflower etc. in semi dry & green stages.

**Design Requirements**

Sr. No.	Specifications
1	Chopping & blowing green or semi dry fodder of crops like sorghum, hybrid nappier, maize, sunflower etc. into pieces of about half inch approximately.
2	Capacity to be 2-3 MT per hour on green fodder of sorghum, maize etc.
3	Flywheel type cutting mechanism provided. (Cutting drum to have 3 blades or more).
4	Mobile, trailing version complete with cart, axle & tyres.
5	Two pneumatic tyres, proper chassis & axle provided for quick transport.
6	Chop size adjustable in the range 5 to 26 mm.
7	Conveyor type feeder provided for heavy duty continuous run.
8	Appropriate U shaped mouth piece casted or fabricated 250-320 mm width to be provided.
9	Flywheel to be strong and sturdy, preferably in steel plate, dynamically balanced having proper chopping blades, plumber blocks, sealed bearings etc as per output needs.
10	Inbuilt blowing arrangement for upward loading/blowing of fodder 4 to 6 nos. throwing plates to be provided.
11	Appropriate spring loaded rollers provided to hold fodder crops.
12	Long life blades provided.
13	Excellent quality painting after thorough rust removal to be ensured.
14	All safety covers, hoods, protections as per need included.
15	PTO drive shaft for tractor drive 540 RPM included with safety pin/clutch.
16	Strong & sturdy design. Complete in all respects –ready to run version.
17	Minimum one year warranty included.



**Conveyor fed chaff cutter (Chopper loader)**