



MASTER PLAN FOR THE WHOLE FERTILIZER PROCESSING SYSTEM

Water content 20-40% Broiler manure Treat to
GRANULAR ORGANIC FERTILIZER
(Granulation process)



**HEBI RENYUAN BIO TECH
DEVELOPMENT CO.,Ltd.
OVERSEAS DIVISION**

Introduction

Background

Vietnam is the main agriculture products exporting country in the world, the consumption of organic fertilizer has been increasing in recent years, and the main importing country is Japan, European country, and China, and the Bio fertilizer has been the highest price among all the imported product. After pandemic of covid-19, with unstable US dollar rate and increasing sea shipping cost, the imported organic fertilizer price keeps raising, which calls for Vietnam local animal farm or professional fertilizer composting to local compost the animal dung and waste into organic fertilizer.

Current problems for composting fertilizer in Vietnam

There were Vietnam big agriculture corporations installed sealed tank fertilizer fermentation projects few years ago, the facility imported from Japan, since the facility designed for giant animal dung with integrated animal farms, while the facility designed for the developed country environmental law of emission control standards. After operation, the buyers found the operation cost is high, hard to cover the cost, the projects have been abandoned now.

While in Vietnam there are small organic fertilizer producers to locally produce with small investment facilities, but cannot meet the major organic fertilizer trader requirements.

Expecting organic fertilizer quality or standards by the main Vietnam fertilizer buyers

In Vietnam market the most trader of commercial organic fertilizer requires the standard products as:

Product form	OM content	N	P	k	Moisture	Humic acid content	Other additives	Purchase price by trader
powder	50%	3	2	2	20%			
Small ball	15%		2		30%		Trichoderma 1x10 ⁶	
Extruding column	60%	3	2	2	15%			

Target customer in Vietnam organic fertilizer producer

Whole plans are designed by HEBI RENYUAN BIO TECH CO.LTD. for the producing to High Nitrogen Organic Fertilizer (we call PREMIUM ORGANIC FERTILIZER). It can be made from under 40% water content of Broiler or Layer manure which come out from fine condition of cage system. And all devices are chosen by trustable quality and successful result.

Following subjects explain each facility and how they work until forwarding. We all hope that this technology can contribute to Vietnamese livestock farmer and cultivator and supplying safe eating habits to the citizen.

Facing current Vietnam animal dung composting problems, we special design the production scheme with lowest cost, and simple formulation, to cut down the organic fertilizer production cost, make it feasible for private fertilizer producer.

Business model

1. Organic fertilizer trader/ buyer provide all legalization and documents for fertilizer production; And would be the fertilizer buyers of the finish products under contract;
2. Private organic fertilizer producer or livestock, animal farmers prepare the land, buy the equipment, and produce the organic fertilizer;

Basic condition for private farm and private organic fertilizer producer

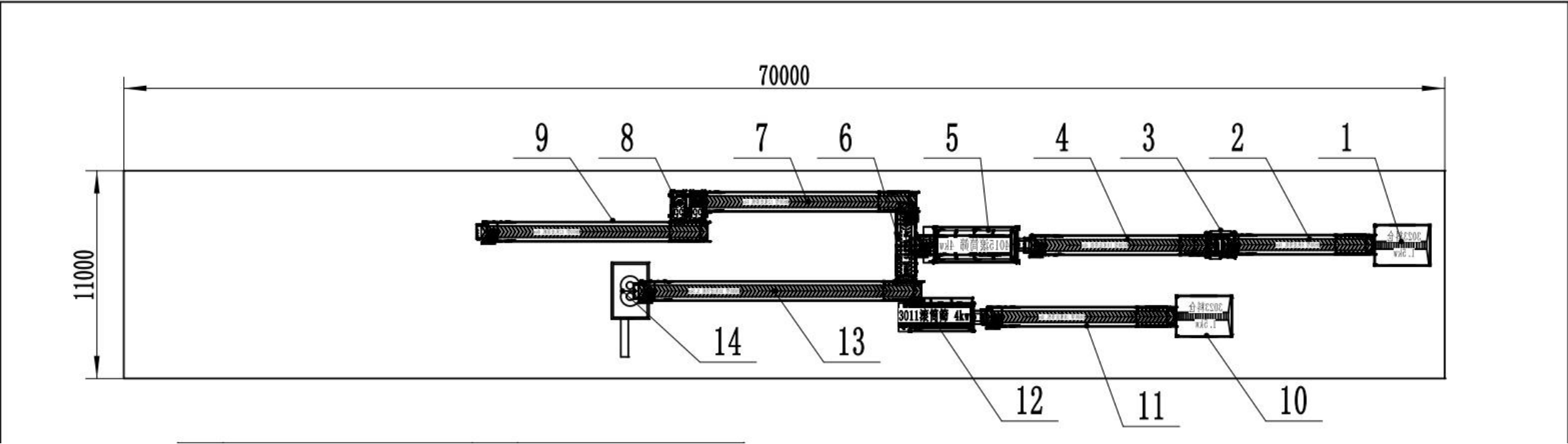
Land: 1000 m² Designed as production land, must with roof building

Facility: 1 set of RY granulation facility

Productivity: 10000 MT composted powder form organic fertilizer, need labors 4 persons in staff

Finish product: 8500 MT granulation organic fertilizer, (rest failed still in powder)

The laying diagram of the equipment--Extruding granulation line



Facility: 1 set of RY granulation production line as below

Material : composted powder form organic fertilizer water 30%

If need lower moisture content, after granulation, setting for nature moisture losing to 20%

Productivity: 10000 MT powder form composted powder form of organic fertilizer, need labors 4 persons

Finish product: 8500 MT granulation organic fertilizer, (rest failed still in powder)

Electricity power supply: 315 KW

Labor Force: 4 workds

Product form of the extruding granulation:









the length of the Pallet is adjustable










Water solubility of the granular

Noted: For above effect of organic fertilizer, the recipe of humic acid formulation, and outside sprayer adding make it more shining, and such technology can be added by customer required.

Commodity&Description

No.	Item	Specification	Power	QTY	EXW Price (RMB)	Picture
1	RY-LCS3023 Feeding hopper machine	1. Cabin size:2.3*3m 2. Dimension:3.0*2.3*2.3m 3. Hopper volume: about 3.5m ³ 4. Belt conveyor motor:Invert motor 5. Function: collecting material, and feeding material continuously	1.5kw	1 set	xxxxxxx	
2	Belt Conveyor B600 8M	1.Length: 8m, height 2.4m 2.Width: 600mm 3.Material: structural steel 4.Function: convey to crusher	4kw	8M	xxxxxxx	
3	RY-FS 60 Vertical Crusher	1.Diameter: φ600mm 2.Spindle speed: 1450 r/min 3.Dimension: 1400*1100*2200mm 4.Application range: organic fertilizer moisture 30% - 40% 5.Function: crush organic fertilizer raw materials	30kw	1	xxxxxxx	
4	RY-B600 Belt Conveyor 10M	1.Length: 10 m, height 3 m 2.Width: 600mm 3.Material: structural steel 4.Function: convey to rotary screen	4kw	10 M	xxxxxxx	
5	RY-GS4015 Rotary Screen machine	1. Speed: 25r/min 2. Dip angle:4° 3. Sifter size: Ø1.5m*Length4m 4. Dimension: 4.5*1.8*3.2m 5. Function: Screen qualified and unqualified materials 6.Attached 5M belt conveyor,5*5 aperture.	4kw	1	xxxxxxx	
6	RY-B600 Belt conveyor 3M	1.Length: 3m, high:0.7 m 2.Width: 600mm 3.Material: structural steel 4.Function:Two way discharge, parallel	3kw	3M	xxxxxxx	
7	RY-B600 Belt Conveyor 12M	1.Length: 12m, height 2.4m 2.Width: 600mm 3.Material: structural steel 4.Function: convey compost to crusher	4kw	12M	xxxxxxx	
8	RY-PMZL55 Extrusion Granulator	1. Weight: 3t 2. Overall dimension: 2450mm*1050mm*1700mm 3.Capacity: 2-6t/h 4. Function: make granules Can adding one more set when production expansion	55kw	1	xxxxxxx	

9	RY-B600 Belt conveyor 12 M	1.Length: 12m, height 2.4m 2.Width: 600mm 3.Material: structural steel 4.Function: convey compost to crusher	4kw	12M	xxxxxxx	
10	RY-LCS3023 Feeding hopper machine	1. Cabin size:2.3*3m 2. Dimension:3.0*2.3*2.3m 3. Hopper volume: about 3.5m ³ 4. Belt conveyor motor:Invert motor 5. Function: collecting material, and feeding material continuously	1.5kw	1 set	xxxxxxx	
11	RY-B600 Belt Conveyor 10M	1.Length: 10 m, height 3m 2.Width: 600mm 3.Material: structural steel 4.Function: convey compost to crusher	4kw	10 M	xxxxxxx	
12	RY-GS3011 Rotary Screen machine	1. Speed: 25r/min 2. Dip angle:4° 3. Sifter size: Ø1.5m*4m 4. Dimension: 4.5*1.8*3.2m 5. Function: Screen qualified and unqualified materials. 4*4 aperture	3kw	1	xxxxxxx	
13	RY-B600 Belt Conveyor 15 M	1.Length: 15 m, height 3m 2.Width: 600mm 3.Material: structural steel 4.Function: convey compost to crusher	5.5 kw	15M	xxxxxxx	
14	RY-B50K Automatic packing machine	1. Packing weight range: 25-50kgs/bag 2. Including parts: Packing machine & bag sewing machine & bag conveyor & control box& air compressor 3. Function: packing the granule pellet fertilizer	3 kw	1	xxxxxxx	
15	RY-KLDK Electric control cabinet	1. Type: Low-voltage power control cabinet 2. Brand: CHNT 3. Function: Control the turn on and off of the whole line	**	1	xxxxxxx	
Total			126.5k w		xxxxxxx	

Noted: Can adding 1 more set extrusion machine 8. when production expansion

Total EX Work price: xxxxxxxxRMB

xxxxxxx USD

Domestic logistic to Port cost: USD 3000

The rate dated Oct. 2022 1 USD: RMB 7.30

Noted: For above production line,certain individual machine may need extra parts for special reason , which will cause extra cost based above quotation.

2 extruding granulation machines are working in RY factory

