

Agriplus

Offering Farming Solutions Countrywide

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Modules

This project is divided into 9 modules:

- 1) Technician Module
- 2) Franchise Module
- 3) Territorial Module
- 4) Area Module
- 5) Zone Module
- 6) Central Module
- 7) Production House Module
- 8) Buy/Sell Module
- 9) Cultivation Process Module



Farmer Registration

[** means, Farmer must have to give these informations correctly]

- ** Full Name
- NID Number
- Birth Registration Number
- ** Date Of Birth: (Day/Month/Year)
- ** Father's Name
- ** Mother's Name
- Wife's Name
- ** Mobile Number
- ** Home Location (Zila/Upazila/Union) [Only in Bangla]
- ** Division
- ** Home Address (In Details)
- Number Of children (Name/ Gender/ Age)
- ** Number Of Lands [minimum 2 Lands]
 - ** Land Name
 - ** Land Size (In Decimal)
 - ** Land Status (Own, Lease[2-5], Sharing)
 - ** Soil Type (Loam, Silty Loam, Clay Loam, Silt, Clay, Sandy)
 - ** Land Type (High, Medium-High, Medium, Medium-Low, Low, Submerged)
 - Current Crop
 - Crop History (Last Three Years)

- [Feb-May]
- [May-Aug]
- [Aug-Dec]
- [Dec-Feb]
- ** Display Picture
- Printed Documents
 - NID Papers
 - Birth Registration Papers
 - Nationality
 - Visa Papers
 - Passport Papers
 - Driving Licence Papers
 - o Character Certificate Papers

Points to be noted:

- → Farmer ID will be automatically generated from the Name and Date of Birth of the farmer. FORMAT: [<name>-<date of birth>-<3 digit random number>]. Random number is used for ensuring no duplication.
- → Age will be automatically generated from Date of birth.
- → For Maintaining the hierarchy, Only and Only Technicians Can Register Farmers.
- → For implementing Cultivation process, Farmer must be verified. He must give his NID Number/Birth Certificate Number and at least two printed documents.

After Registration:

→ Technician can update "Land Nutrition Elements" after Soil Test. Land Nutrition elements are:

N	Р	K	Ca	Mg
S	Zn	В	рН	Organic Materials

Every measurement will be stored with respect to 1 decimal. Server will acknowledge the total quantity by multiplying it with the land size.

→ If the soil is tested and **Land Nutrition Elements Table** is updated. Then According to this following formula, Land must be preprocessed by using this nutrition elements before cultivation.

Figure 1

Nutrition Element	Product
N	Urea (46%)
*P	TSP (24%)

К	MoP (60%)
Ca	Super Gip (23%)
Mg	Super Magnesium(12%)
S	Linksal (80%)
*Zn	SuperZinc (25%)
*B	Super Boron (16%)
pH [3-4]	4kg Super Dolomite/Decimal
pH [4-5]	3kg Super Dolomite/Decimal
pH [5-6]	2kg Super Dolomite/Decimal
Organic Materials	Northern Compost Sar (According to Cultivation process)

^{*} After giving [P, Zn, Br] one time in a Land, it will become half in amount in the 2nd & 3rd Time. After 3 Crops, full amount must be given in the land.

Every crop has its own requirements of nutrition. If it is greater than Land's nutrition property, then a certain amount of **Shar** must be applied to the land.

In the above table, percentages means within 100unit how much quantity is present of that nutrition element in the **Shar.**

→ If the soil is not tested, then the default cultivation process will be applied.

Choosing Crop For Cultivation:

- → Can Choose Crop From Recommendations. (Recommendations come from the transplanting time of a crop and Seasonal Crop History of that farmer.)
- → After Choosing a Crop, Technician will set a time period for land preprocessing and Seedlings. And give Farmer a printed RECEIPT about the costing of buying land preprocessing elements and seedlings.
- → After Land Preprocessing and seedling, When the farmer is ready to cultivate then Farmer has to maintain the cultivation process strictly.
- → Full cultivation process will not be present for the technician.
- → Cultivation Process for a particular interval, will present 7 days earlier in the list. So that, If any product (of Cultivation Process) is absent in the store, technician will get notified and get option to buy those, from the production House.
- → If a cultivation process is successfully implemented in a certain interval, then it will be vanished from the list. No one except the central, can see the full cultivation process.

Farmer List

Technician Can See/Search Farmers.

- Can also see profile of every farmer.
- He can change farmers personal & land information.
- Each farmer will be under one technician.

Buy Products

- Technician => Production House => Technician
- Input => Product Name, Product Quantity.
- Can buy **manually** or according to requirement of the **Cultivation Process**.

Sell Products

- To Farmers.
- Can sell manually or according to the Cultivation Process.

Storage

- Can see his storage.
- Will change the quantity of products automatically after every buy/sell. He has no permission to update this.

BalanceSheet

- Can see BalanceSheet with respect to daily/weekly/monthly.
- Can also see BalanceSheet with respect to manual range of date input.
- Can print the BalanceSheet.

Technician Profile

- Can see his own profile and modify his password.
- Each technician will be under one franchise.



- Can see the storage.
- Can see BalanceSheet.
- Can see his farmers/technicians profile.
- Can see and update his profile.
- Each franchise will be under one territorial officer.

Territorial Officer

- Can create and modify franchise & technician's account.
- Can modify his farmer's profile.
- Can see **balanceSheet** of his farmers of his region
- Can see his own profile and modify his password.
- Each territorial officer will be under one Area officer.

Area Officer

- Can create and modify territorial officers account.
- Can go through territorial officer/franchise/technician/farmers profile.
- Can see **balanceSheet** of his farmers of his region
- Can see his own profile and modify his password.
- Each Area officer will be under one zone officer.

Zone Officer

- Can create and modify area officer's account.
- Can go through area officer/territorial officer/franchise/technician/farmers profile.
- Can see **balanceSheet** of his farmers of his region.
- Can see his own profile and modify his password.
- Each Zone officer will be under central.



- Central can add new production house.
- Central can add new product and its type.
- Central will add new crop property (Land Nutrition elements, cultivation process)
- Every level of the hierarchy can contact with central.
- Central can see Balance Sheet and the whole transactions.

Buy Sell Module

Buy Products

- Order will go like this: Technician => Production House => Technician
- Input => Product Name, Product Quantity.
- Can buy **manually** or according to requirement of the **Cultivation Process**.

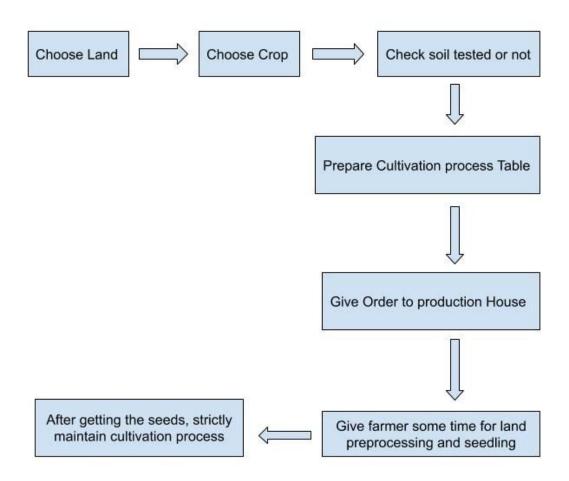
Sell Products

- To Farmers.
- Can sell manually or according to the Cultivation Process.

Cultivation Process

- 1) Farmer first have to choose one crop for cultivation. Some recommendations will be given from the transplanting time of a crop and Seasonal Crop History of that farmer
- 2) Then officer/technician must check whether the **Land Nutrition Elements** are measured or not. According to this information, Full cultivation process table of that crop will be acknowledged in the server.
- 3) If Soil is not tested, then the default cultivation process table will work.
- 4) If Soil is tested, nutrition elements will have to be given according to this table (Figure 1).
- 5) After that, Technician will give that farmer an estimated cost of Land preprocessing and seedlings (Printed Receipt). And will give that farmer some estimated time to complete land preprocessing and seedlings.
- 6) After that farmer will maintain cultivation process very strictly.

Figure 2



Production Houses

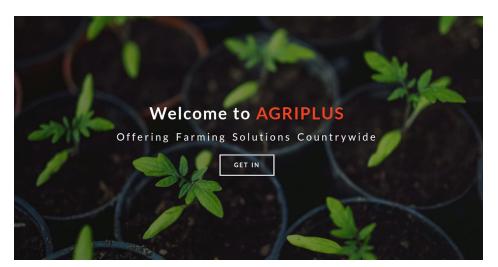
- 1) There will be different types of workers. Everyone must be registered with their identity and salary.
- 2) They will take orders.

Mobile App

- 1) Specialists can have Registration opportunity. They will be verified from the Central.
- 2) Technician can post (For Farmer). Any Picture/Video is acceptable. If there is any problem occurs in the crops, technician can post about that. And the specialist will comment on the solution.



Introduction



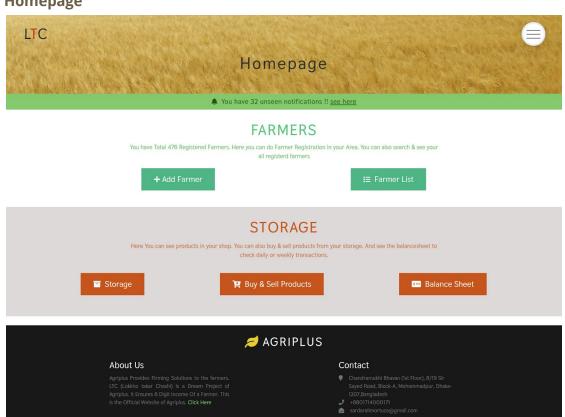
Login



MEMBER LOGIN



Homepage



Farmer Registration: Personal Info Full name: Username: NID Number: Birth Registration Number: Date Of Birth: Day Month Year Father's Name: Mother's Name: Wife's Name: Mobile Number: Home Location: Zilla Upozilla Union Division: Home Address: (In Details) Number Of children: Number Of Lands: Printed Documents: Select Printed Documents Choose a Profile Picture:

Drag your photo or click here to upload

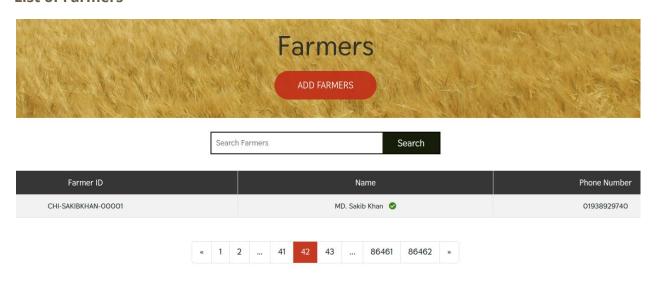
Farmer Registration: Land Info

Land Information

→ Land 1



List of Farmers



Central View: Add new Products/Plants

Product Type ▼ Product Name

Products | Plants

Products

Packet Size

Trade Price

+ create new product type

Create

Serial No	Product Type	Product Name	Product Code	Packet Size	Trade Price	WR Price	Update
1	CP-GRADIENT	Cytop	CYT101	120.5 Kg	120	220	ď
2	CP-GRADIENT	СТУОР	CYT101	110 Kg	220	445	ď
3	CP-GRADIENT	CINGO	CIN101	220 Kg	112	440	ď

Plants

+ Add New Plant

Serial No	Plant Code	Plant Name	Trade Price	Max Retail Price
1	Mango	MAN-101	120	220
2	Strawberry	STR101	220	440

Central View: Production Houses and the Balance Sheet

Product Code

Employee

Serial No	ID	Name	Phone Number
01	xxxxxxxx	XXXXXX XXXXXXXXXXXXX	XXXXX XXXXXXXXX
02	xxxxxxx	XXXXX XXXXXXXXXX	XXXXX XXXXXXXXX
03	xxxxxxxx	XXXXX XXXXXXXX	XXXXX XXXXXXXX

Balance Sheet

Serial No	ID	Total Bill	Transition Status	Invoice
01	xxxxxxxx	XXXXX	Delivered	Δ
02	xxxxxxx	xxxxx	Shipped	<u>D</u>
03	xxxxxxx	XXXXX	Not Delivered	D

Cultivation Process



Plant Information

Plant Code	Plant Name	Transplanting Time	Trade Price	Max Retail Price	Seed Per Decimal	Update
MAN-101	Mango	Jan-May	120	220	100	B.

Nutrition Management

Serial	Nutrition Element	Quantity	Update
1	N	12 g	Z'
2	P	1000 kg	Z'
3	к	-	3
4	Ca		Z
5	Mg	-	Z
6	S		Z
7	Zn	-	Z
8	В		Z'
9	рН	[4-5]	Z'
10	Organic Materials	9	B

Cultivation Process

Day [0-3]

Seedling Stage

	Troduct Harrie	Troduct Quality Cleate		
Serial	Product Name	Product Quantity	Update	4
1	Cytop	123 Kg	ď	
				+

Day [3-8]

Seedling Stage

Product Quantity

Product Name

Serial	Product Name	Product Quantity	Update
1	CINGO	120 Kg	ď
2	CINGO	220 Kg	ď

Technologies

Category	Name
Frontend	HTML, CSS, Vanilla JS, jQuery
Backend	Node JS
Database	MongoDB