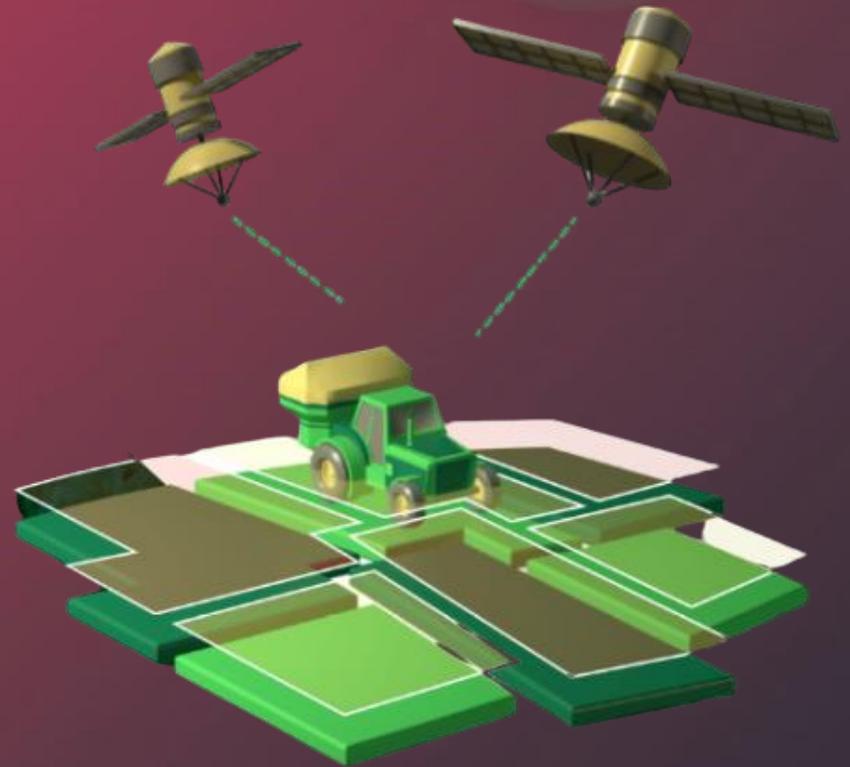


# GROWTECH Services

## Digitalizing Ag-landscape in Pakistan



<https://play.google.com/store/apps/details?id=growtechsol.com>  
<http://www.growpak.store/>

[www.growtechsol.com](http://www.growtechsol.com)  
[www.facebook.com/growtechsol](https://www.facebook.com/growtechsol)  
<https://www.youtube.com/channel/UCBh8hcmVMD3hws-NMfzG1fQ>



SWIFT BIZ SOLUTIONS

# Revolutionizing Digitalization

## About us

We are a group of companies actively offering solutions in *IT, Telecom, Banking, Education, Fintech and Agtech sectors*. Based in Islamabad, Pakistan with more than 15 years of history and presence in multiple cities, we are leaders in technological innovation introducing high quality and reliable products & services for our partners and more than a million customers. An enterprise with vision for providing affordable digital products solutions for Pakistanis through its flagship registered brand **Digit®..**



[www.digit4g.com](http://www.digit4g.com)

[www.growtechsol.com](http://www.growtechsol.com)

GROW TECH SERVICES PRIVATE LIMITED OFFICIAL DOCUMENT



# Sectors



## TELECOM

- Mobile Broad Band Devices
- 4G Phones
- Sim Cards
- GPON Products



## IT

- Software & App Development
- Network Management System
- Fault & Performance Monitoring



## BANKS

- POS Terminals
- Biometric Systems
- Banking Cards
- Monitoring Solutions



## EDUCATION

- LEGO Education
- Educational Tablets



## AGRICULTURE

- N- Variable Rate & SOC
- Water Stress Management
- Plant Health Analysis
- Management Zoning
- Weather
- Ag-Commerce



# GROWTECH Clientele

## Corporate

- HBL
- ZTBL
- SANIFA
- ASML
- BoP
- *More banks and suppliers are in talk to finalize to support Ag-Commerce and farmers*

## Individual Farmers

- In 17 districts of Pakistan
- 7000 acers
- 8 Active crops – GROWTECH supports 32 crops and counting



HBL



GITEX Dubai



ZTBL

# Agriculture Contribution in Pakistan



Agriculture is considered as a dominant sector but due to its declining performance because to the political, social, environmental and climate conditions its production yield is going down gradually and now it is the second largest sector in Pakistan

**19% GDP contribution**

**42.3% labor force  
involvement**

- Textile is the largest sector in Pakistan

## Problem Associated with Agriculture Sector

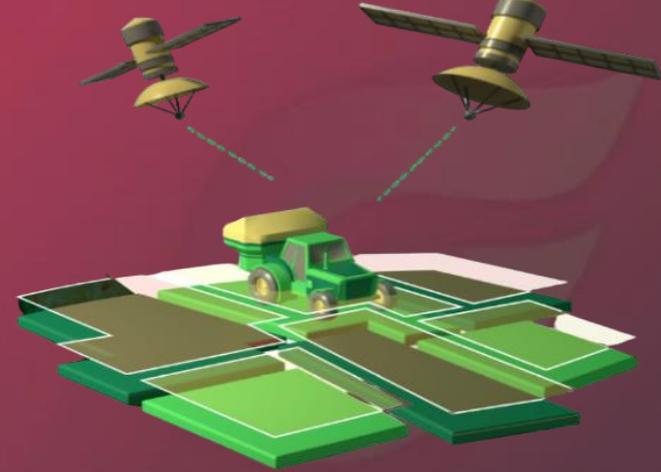
World will need to produce 60% more food by 2050. Pakistan alone will need to produce 50% more food by 2050. Our current yield is decreasing every year.

- 1 Lack of Modern Agriculture technology
- 2 Poor financial position of farmer
- 3 Depleting water resources
- 4 Low per hectare yield
- 5 Product & Price Discovery – Strictly localized market
- 6 Illegal Land holdings
- 7 Water logging and salinity



# GROWTECH

Digitalizing Agriculture in Pakistan



## Vision

To become the preferred name for precision and data driven agriculture in Pakistan.

## Mission

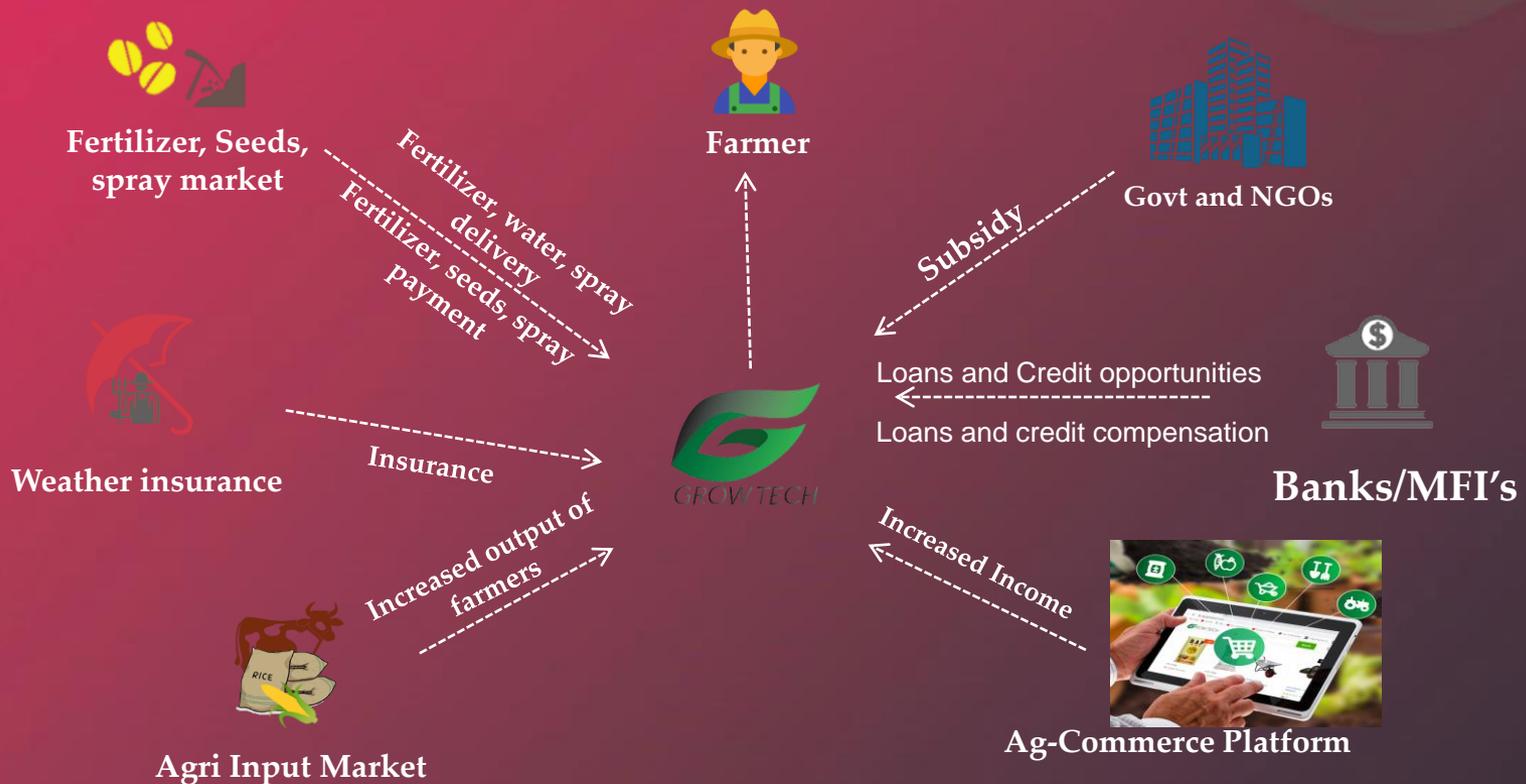
GROWTECH would drive the emergence of a Pakistan that feeds itself by using technology to enable farmers produce more from less.

## Social Impact

- ✓ Committed to raise the income levels of farmers.
- ✓ Cut down post-harvest losses by 20%
- ✓ Creating thousands of new opportunities for young people in agriculture.

# Big Picture - Connected Ag-Landscape

Our innovative solutions include digital tools such as satellite-based data analytics to determine the nutrients in soil, identify soil deficiencies, reflect crops health analysis, water stress management, proprietary weather forecast, expert advisory to farmers and an Ag-Commerce platform.



# Concept - The Most Comprehensive Agri-Tech Solution

We are farming enthusiasts and a scientific research-based company providing satellite data analysis and precision farming tools

## TECHNOLOGICAL INTERVENTION



# Value Proposition – Insurance Companies & Financial Institutes

## Famers

1. **B2C Insurance**
2. **Access to credit**
3. Introduction of Remote Sensing Technology
4. Agriculture experts assistance throughout crop cycle
5. Online monitoring of their farms
6. Input cost reduction
7. Yield Improvement
8. Profitability increase up to 30%
9. Additional free services like weather, Farm management, crop cycle advisory, community chat
10. Integration to multiple agriculture stakeholders

## Insurance & FI

1. **Risk Aversion – Farm monitoring throughout crop cycle**
2. **Risk Assessment – Historical Productivity Maps**
3. Access to GROWTECH farmers
4. B2C Insurance segment Opening
5. Value added services to their existing clients
6. Additional source of revenue
7. Help to ensure clients loyalty
8. Contribution in food security, water conservation and mitigating adverse environmental impacts

# GRWOTECH - Crop & Soil Specific Analysis & Reporting

1

Soil Organic Carbons

## Benefits

- Maximize Biological Activity
- Improved Plant Root Growth and moderate PH ranges

2

Plant Health Analysis

## Benefits

- Early detection of crop stress & abnormalities
- Improved scouting and field insight

3

Water Stress Analysis – Plant

## Benefits

- Early detection of crop water stress and need for irrigation.
- Conservation of water use by irrigating only when necessary.

4

Crop Specific Fert. Recommendations

## Benefits

- Cost effective solution, saving up to 20% on fertilizers.
- 20-30% yield increase and improved uniformity of crop quality.

5

Soil Moisture

## Benefits

- Help to optimize water use
- Consider both Soil and Plant Moisture

6

Soil Nitrogen Supply\*

## Benefits

- To avoid extra use of Nitrogen
- Monitor Soil supply (SNS)
- Crop specific and adjust fertilizer use

# GRWOTECH- Crop & Soil Specific Analysis & Reporting

7

Total Nitrogen  
Need – Crop Specific\*

## Benefits

- Based on SNS, make the plan to use Nitrogen
- Save cost and avoid pollution

8

Historical  
Productivity Map

## Benefits

- Help to understand Land performance
- Make yield plan based on historical data
- Target input application where it matters

9

Target Yield  
Map\*

## Benefits

- Help growers to assist in targeting better Yield target
- Invest based on output target

10

Weather

## Benefits

- Improve farming practices, thus reduce risk, increase yields and maximize their profits

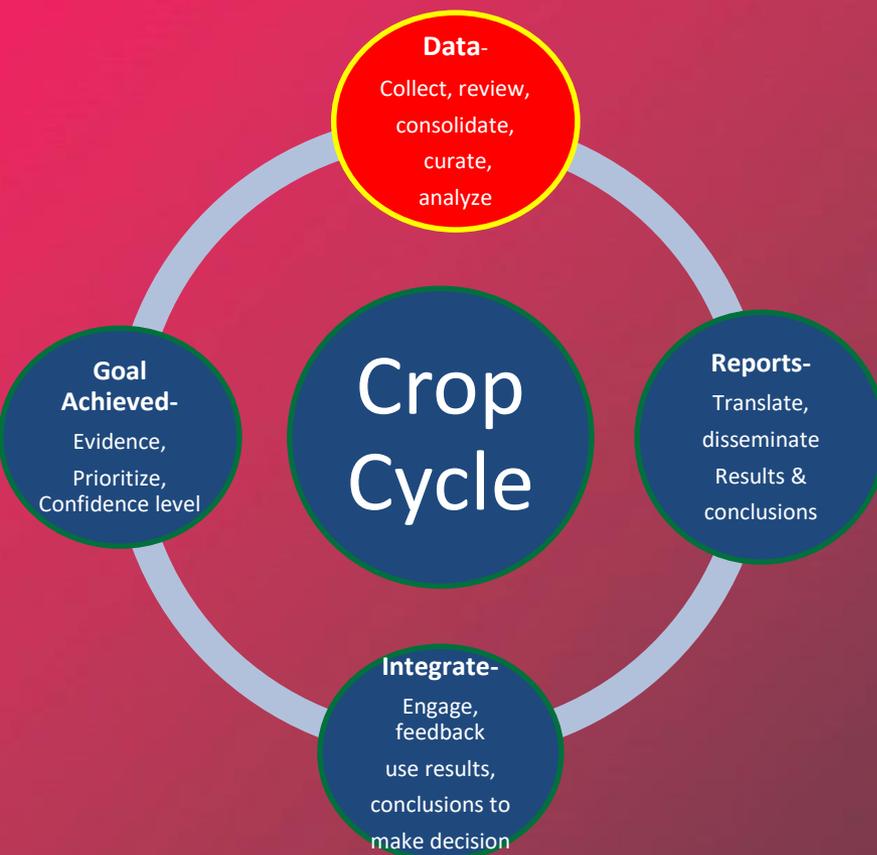
11

*Ag-Commerce/  
Supply Chain  
/Machinery*

## Benefits

- Better Price and Product discovery
- Direct access to input seller and commodity buyers
- Universal Market Place
- Access to rental Machinery/Warehousing
- High grade commodities supplied

# GROWTECH Philosophy



## Ag-Commerce – Integrated Ag-Landscape

- *Other platform working only in one domain – Highlighted in RED & PARTIALLY*
- *Only COLLECT DATA and DISPLAY*

Sr.no	Services	GRTOWTECH	Other Platforms
1	Weather	✓	✓
2	Crop/Soil Specific Advisory	Analytical: Reporting based on Data, Crop Specific, Soil Specific, complete crop cycle support, Inputs application (Nutrients, irrigation, chemicals) recommendations based on Analytics and where & when is needed by GRWOTECH Agronomy experts	Verbal & non-committed based on Tele-agri
3	SOC	✓	×
4	N-Analysis	✓	×
5	Plant Health	✓	Image with no supporting data or tine series
6	Soil Moisture	✓	×
7	Plant Moisture	✓	×
8	Target Yield	✓	×
9	General Advisory - Crops, Inputs, Machinery	✓	✓
10	Content (Written, Audio, Video)	✓	✓
11	Plant Health Analysis Reports	Analytical: Based on data generated through Satellite Imagery & analyzed & curated by GROWTECH Agronomy Team	×
12	Water Stress Management Reports	Analytical: Based on data generated through Satellite Imagery & analyzed & curated by GROWTECH Agronomy Team	×
13	Fertilizers Recommendations Reports	Analytical: Based on data generated through Satellite Imagery & analyzed & curated by GROWTECH Agronomy Team	×
14	Soil Organic Carbons Reports	Analytical: Based on data generated through Satellite Imagery & analyzed & curated by GROWTECH Agronomy Team	×
15	Ag-commerce	✓	×
16	Stake Holders Integration	✓	×

# Services Cycle for Crop Cycle

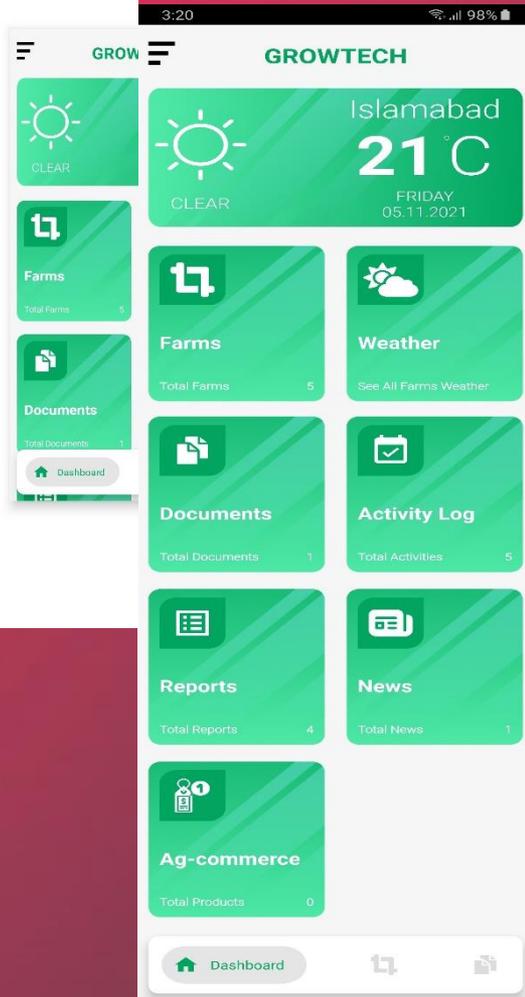
04 Times a month	1-2 times Per growing season	Once Per growing season
Monitoring	Prescription	Advanced Measurement
Crop Specific PH	N. Recommendations	<i>Historical Productivity Maps</i>
General PH (SAR)	Crop Specific N. Recommendation	SOC
Water Stress	SOC	SNS – Soil Nitrogen Supply
Soil Moisture		TND-Nitrogen Need
Management Zones		Target Yield map

Costing Per Acre Per Crop Cycle (max 06 Months)		Per Crop Cycle - 3 times a month	Per Month	Once in Crop Cycle
Package-1	Light	Plant health+Water Stress+Soil Moisture+mgt Zones		Crop Specific N Recommendations+SOC
Package-5	Fertilizer Recommendations			SOC+ Prescription General N Recommendations
Package-6	Historical Productivity Maps			One time Service
Package-7	Plant Health Analysis		Max. 3 times	
	Water Stress			
	Soil Moisture			
	Management Zones			

# Mobile Based Application GROWPAK (Available on Android Play Store)



Side Menu



Dashboard



Farms



Weather



Analysis





**GROWTECH**  
SERVICES (Pvt) Ltd.

# پاکستان کے تمام محنت کش کسانوں کو گروٹیک کا سلام

Email:- info@growtechsol.com

Mobile # : 0321-3234980



کسان بھائیوں کے لیے اس خاص دن کے موقع پر گروٹیک کمپنی اپنی **GROWPAK** ایپ میں دے رہی ہے مفت:

زرعی رہنمائی  
دستاویزات  
موسم کی صورتحال  
سرگرمیاں  
تازہ خبریں  
فارم مینجمنٹ

فصلوں کے علاوہ اب کسان بھائی گروٹیک کی خدمات درج ذیل **سبزیوں** پر بھی حاصل کر سکتے ہیں۔

گروٹیک کا طریقہ کام



گروٹیک کی GROWPAK ایپ

لہسن (Garlic) پھلی دار سبزیاں (Beans) گاجر (Carrot) ٹماٹر (Tomatoes)  
پالک (Spinach) سلاد (Lettuce) چھندر (Beetroot) بروکولی (Broccoli)  
بند گو بھی (Cabbage) اجمود (Celery)

گروٹیک کی پہچان

ہماری طاقت، ہمارا کسان

پاکستان میں زراعت کی ترقی کیلئے کوشاں گروٹیک زراعت سے متعلق ٹیکنالوجی کمپنی ہے، جو پاکستان کے زراعت کے شعبے میں محرومیوں اور عدم استحکام کو ختم کرنے کے لیے جدید حل مہیا کرتی ہے۔

Follow us on

[www.growtechsol.com](http://www.growtechsol.com), [www.facebook.com/growtechsol](https://www.facebook.com/growtechsol), <https://www.youtube.com/c/GROWTECHServices>

# Unified Digital Marketplace –

[www.growpak.store](http://www.growpak.store)

- User will be able to create his account as seller/buyer
- On Reg page Seller will enter basic info like name, email, phone, address, shop/store etc.
- Seller will be able to add product, receive orders & track orders.
- Added products will be proved by admin first before going live.
- Seller will be able to specify his selling region(s).
- Notification will be sent to related seller through email and SMS.
- Buyer will be able to filter product(s) on various indexes like region, categories, price etc.
- Buyer will be able to see related product(s) base on product page.
- Buyer will be able to add product(s) to cart, checkout, place order and track order.
- Notification will be sent to related buyer(s) through email and SMS service.
- **Warehouse will be developed and managed by interested party to ensure product grading quality assurance and supply chain.**
- **Online payment gateway will be integrated to ensure fluent, secure transactions.**
- **Platform will collect payments to ensure better services and return policies.**

The image displays two screenshots of the GrowPak Store dashboard. The left screenshot shows the 'Add New Product' form, which includes fields for product name, price (Rs. 0.00), a discounted price schedule, a short description, a category selection, and tags. The right screenshot shows the 'Category Wise' product listing, which features a table of products with columns for image, name, status, SKU, stock, price, earning, type, views, and date. The table lists products like 'DAP 50kg' and 'Urea 25kg'. Below the table, there are product cards for various items such as Mustard Cake, Blood Meal, Fish Fertilizer, Neem Cake, Spray Gun, Bone Meal, Australia Banana 16 Pack, Locally Grown Strawberry, 1 Pint, Avocados - Hass (New Season), and Organic Oranges Valencia.

Image	Name	Status	SKU	Stock	Price	Earning	Type	Views	Date
	DAP 50kg	Online	-	In stock	Rs 4,500Rs 6,000	Rs 4,050	0	0	December 30, 2021 Published
	Urea 25kg	Online	-	In stock	Rs 2,800Rs 4,000	Rs 2,520	0	0	December 30, 2021 Published

# Quality Control

## Unified Digital Marketplace - All of Agri-related Products & Services

### Platform-as-a-Approver

- Supplier
- Product
- Order Confirmation

### Platform-as-a-integrator

- Warehouses
- Grading Labs
- Banks
- Recorded Trade



### Platform-as-a-Financial custodian

- Payment to be held to impose return policy period
- One week return policy
- Customer Feedback
- Supplier Rating



# Creating Social Impact - Brief

Though real benefits can only be analyzed and confirmed based minimum on two crop cycles BUT we may highlight Farmers feedback & their benefits achieved so far

- **Indicators**
  - Boundary identification based on soil health status – *long term land recovery*
  - Crops may be rescued based on GROWTECH recommendations – *Yield/Food security*
  - Controlled use of Fertilizers & Water – *Input cost saving/Environmental Pollution Reduction/Water Conservation*
  - Highlighting of Stress areas – *Input cost saving/Yield Improvement*

# Good Agricultural Practices

Soil state or fertilizer application is important but Good Agriculture Practice is very essential for ensuring high yield.

Good agricultural practice includes the best tillage practices, use of the right seeds and inputs., carrying out of farm operations at the right time, and adequate weed and pest control mechanisms.

Farmers have to implement “4Rs” for maximum productivity.

## 4Rs:

- Right source
- Right rate
- Right time
- Right place

They provide the foundation for a science-based framework.

Optimal yield in crop production is a sum of several factors. Those factors must all be in place for optimal yield to occur. They include *Correct Tillage Operation, Planting Certified Seeds, Crop Planting Spacing, Correct Fertilizer Application, Weed Management, Pest and Disease Control.*

# REACH OUT

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**GROWTECH Services Pvt. Ltd.**



**GROWTECH**