



SMART AND FAST: ENHANCING SOIL HEALTH MANAGEMENT THROUGH MOBILE APPLICATION

Muhilan G^{1*}, Bagavathi Ammal U², Venkatesan V.G¹, Kalaiselvi A¹, Lingeswari R³ and Soorya Ganesh⁴

¹M.Sc. Scholar, Dept. of Soil Science & Agricultural Chemistry, Pandit Jawaharlal Nehru College of Agriculture and Research Institute, Nedungadu Post, Karaikal 609 603

²Professor & Head, Dept. of Soil Science & Agricultural Chemistry, Pandit Jawaharlal Nehru College of Agriculture and Research Institute, Nedungadu Post, Karaikal 609 603

³M.Sc. Scholar, Dept. of Plant Pathology, Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu Chatha, Jammu 180 009

⁴M.Sc. Scholar, Dept. of Agronomy, Kerala Agricultural University, College of Agriculture, Padannakkad, Kasargod 671 314

*Corresponding Author Mail ID: muhilan2509@gmail.com

Introduction

Agriculture is a prime factor for food production and sustainability. Currently global population growing faster and agriculture land getting limited and crisis for food is yet to be approached in future. To resolve this, we should take care of land resource effectively and precisely. Soil is a significant ecological factor driving the agriculture.

Management of soil is important for good crop growth and yield. Farmers are lack of advanced technologies and they are under situation of not getting useful information relating to soil health management, cropping period over climate change, and fertilizer calculation on blanket application, schemes, etc. on regularly.

To overcome this, there are several application (Mobile apps) available on play store. This will guide farmers, policy makers, young researchers, scientists, research scholars to utilize available and recent technologies, information etc. on soil forum effectively and immediately. This article briefs and lists the Top mobile application helpful in driving the soil healthier and resource management effectively and precisely.

Mobile Application

1. Soil Health Card App (India)

- This application was developed and released by Ministry of Agriculture. It supports farming community by providing useful information on sample collection, farmer registration and soil test management.

Major Highlight of App:

- This App provided with QR code, so that soil sample collection can be done using that code and can visit the farmer's location using the code.
- It helps in plot survey
- Regular updating on soil sample tracking and status
- Government laboratories can conduct soil test and result was updated in this portal





Users can easily identify and compare high analysis NPK fertilizers, micronutrient blends, bio stimulant ingredients and targeted nutrient products that best suit a crop's needs. A full size chart is available on our main site.

2. CropIn Smart Farm

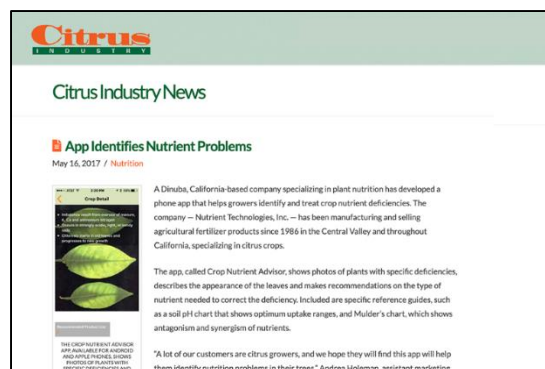
- It gives a complete details on farm related information
- Monitor and manage the farms easily
- It will save time and minimize the error caused with digitized cultivation process
- Making data-driven decision to improve farm productivity and profitability



3. Crop Nutrient Advisor

- It is a prominent app which is helpful in identifying and diagnosing the disorder or deficiency symptoms by providing or capturing field crop images. Then after processing, it will give the which nutrient is deficient and what are the management practices to be taken care of.
- This App has a product composition chart (% by weight) to effortlessly compare nutrient analysis in different products.

	N	P ₂ O ₅	K ₂ O	Mg	Ca	S	Zn	Mn	Fe
NERI Blend	2	1	-	1.5	-	0.65	0.5	0.3	0
NERI Zinc 0-0-1	-	1	-	-	-	5	-	-	-
Nutriganic Calcium	9	-	-	8	-	-	-	-	0
Nutriganic Green Season Blend	5	2	1	4.5	2	2	-	1	0
Nutriganic Zinc	6	-	-	5	1	10	-	-	0
All Season Blend	2	6	2	0.5	4.5	2.5	2	1.5	1
Alpha	10	-	-	8	2.5	5	-	-	-
Beta	6	-	-	1	1.5	6.5	6.5	-	-
Bloom Blend	1	10	-	1.5	5	-	2	0.5	0.5
Cal-Bor + Moly	-	-	-	-	10	8	-	-	-
Copocal	14	-	-	7.5	-	-	-	-	-
Gamma	10	-	6	4	-	-	-	-	-



4. Plantix – your crop doctor

- This app will be helpful in diagnosing crop plants in on-field situation within 1.7 seconds and it can be able to detect the 82 different types of crops.
- It also allocates some expert in online platform to address our problems pertaining towards crop diseases.

