Krishi Gyan
Mobile Apps

Indian Council of Agricultural Research
New Delhi
Krishi Gyan
Mobile Apps
MESSAGE

The Hon’ble Prime Minister of India, Shri Narendra Modi Ji often emphasize three ‘S’ for success of any venture – Skill, Scale and Speed. Several ICAR institutions, State Agricultural Universities, Krishi Vigyan Kendra (KVKs) and development departments undertake technology validation and dissemination efforts to infuse the farm innovations among the farming community. Of late, ICTs especially the Mobile Apps have emerged as handy tools to strengthen the extension system by providing information on crops, animal, fish, natural resource management, weather, market and advisory services.

The current extension services delivered through trained officers at the local level is having limited scope and thus warrants a strong Information Communication and Technologies (ICT) support to align with the needs of farmers, their existing experience and knowledge base with modern agricultural technologies and practices.

The Mobile Apps developed by different institutions across the country can be used to educate the farmers on crop production and technologies and its post harvest related issues including marketing. The use can be extended for livestock production management and taking up various economic enterprises like mushroom, beekeeping, etc.

Given the wide spread farming related information, these Mobile Apps can enhance the reach of extension services to a large number of clientele groups. Moreover, they can address the personalized information needs of farmers in timely manner by providing them relevant and customized information.
I appreciate the efforts of ICAR institutions in developing several Mobile Apps and bring out a comprehensive publication by compiling the information on these Apps. I believe that use of these Apps would lead to knowledge empowerment of farmers and transform the way farming is being carried out.

Dated: 11 July 2018

(Radha Mohan Singh)
MESSAGE

Indian agriculture has witnessed tremendous growth in terms of production and productivity by mobilizing knowledge resources since Green Revolution. This achievement could be made due to dedicated efforts made by the policy makers, scientists and extension workers of India who mobilized the knowledge resources using various methods of communication. Farmers used scientific knowledge provided by the research institutes and blended their indigenous knowledge to take Indian agriculture to new heights. This proved that involvement of multi-stakeholders with their valuable knowledge and information, mobilized by diverse approaches, is pre-requisite for making agriculture more sustainable.

Despite of stupendous efforts being made by different organizations to disseminate technology, there is a measurable gap in knowledge generation and actual use at the farmers' level. This gap exists due to multiple factors including slow pace of technology transfer. This provided an opportunity to evolve an efficient and economic communication methods including Information Communication Technologies (ICTs).

Indian Council of Agricultural Research (ICAR) and State Agricultural Universities have also ventured into developing and utilizing ICTs including Mobile Apps to enable farmers to get timely information and equip them to take informed decisions for selling their produce at optimum price.

I am happy to know that ICAR has compiled the Mobile Apps developed by NARES on crops, horticulture, fisheries, animal sciences, weather, marketing etc. and brought out a publication for the benefit of farmers, extension workers and policy makers.
I am confident that this publication will be extremely useful in developing capacity of farming communities, agripreneurs, development personnel and others who are engaged in agriculture and allied activities.

Dated: 10 July 2018

(Gajendra Singh Shekhawat)
For bridging information gap between the farmers and R&D institutions and for building productive and competitive market, the use of different ICT interventions has become indispensable. Agricultural extension especially the frontline extension model pursued by ICAR institutes, SAUs and KVKs need a cost-effective outreach with clientele specific solutions to the information needs of farmers. The mobile technologies have emerged as new channels for easier and faster communication. As farming in the current context has not remained linear, it requires constant interventions at every stage where new technological inputs may provide better outputs. It implies that, production depends on weather, practices and management of externalities at right time for better results.

The Indian Council of Agricultural Research (ICAR) has marched forward in this direction so as to disseminate the appropriate technologies to a large section of farmers who were hitherto unreached using the conventional model of information delivery. The application of Mobile Apps developed by ICAR institutes and KVKs shall have long lasting implications for farmers in making their farming more efficient and augmenting their farm income.

I congratulate the Agricultural Extension Division, and other Divisions/ Institutions for taking initiative to compile Mobile Apps related valuable information and bringing out the document which shall be extremely useful to the farmers, development personnel, agripreneurs and others who are engaged in farming.

Dated: 10 July 2018

(T. Mohapatra)
The diverse agro-ecological, socio-economic and cultural conditions of the Indian farmers call for different extension approaches. Looking into large number of farmers and regularly use of mobile phones, the Government of India emphasizes upon harness opportunities offered by ICT for efficient and speedy transfer of technologies to the end users.

The KVKs/ICAR institutes and State Agricultural Universities have developed a number of mobile applications in English and vernacular languages on agriculture and allied sectors for the benefit of farmers and other stakeholders. Most of the Apps developed are android based being aligned with the mobile phones. These Apps provide valuable information on latest package of practices, weather, market, services available, schemes of government of India, advisory, etc for different agro-climatic zones of the country.

I strongly feel that the Apps being developed by different institutions should be compiled at one place so that the farmers can choose as per their requirements. It will make it easier for the users to search and use. The next step would be to aggregate these Apps to further ease the process of searching a relevant App.

I am sure that this publication will be useful for the farmers, field level extension functionaries, other stakeholders and policy makers for creating awareness and solving the problems.

Dated: 10 July 2018

(A.K. Singh)
CONTENTS

Message from Hon’ble Minister of Agriculture & Farmers Welfare iii
Message from Hon’ble Minister of State for Agriculture & Farmers Welfare v
Foreword vii
Preface ix

Introduction 1

I. CROPS
1. RiceXpert 4
2. RKMP Rice Vocs 5
3. Rice IFC (Insecticide & Fungicide Calculator) 6
4. Rabi Sorghum 7
5. Jwari (Sorghum) 8
6. Information on Foodgrains 9
7. Chanamitra 10
8. Cane Adviser 11
9. Cotton (Kapus) 12
10. Soybean-Gyan 13
11. E-Thilhan 14
12. ICAR IIOR 15
13. ICAR IIOR Castor 16
14. ICAR IIOR Sunflower 17
15. ICAR IIOR Safflower 18
16. ICAR IIOR Sesame 19
17. ICAR IIOR Biocontrols 20
18. Fodder App 21
19. PDKV Weed Manager 22
20. Weed Manager 23
21. Nematode Info 24
22. Micromitra 25
23. Emausamhau Krishi Mausam Seva 26
24. VNMKV (Dry land Cultivation) 27
<table>
<thead>
<tr>
<th>No.</th>
<th>Project/Programme</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.</td>
<td>Mobile Farm Solutions (Q&amp;A)</td>
<td>28.</td>
</tr>
<tr>
<td>29.</td>
<td>mAgIDS</td>
<td>32.</td>
</tr>
<tr>
<td>30.</td>
<td>Agri eXpert System</td>
<td>33.</td>
</tr>
<tr>
<td>31.</td>
<td>Khetiyok</td>
<td>34.</td>
</tr>
<tr>
<td>32.</td>
<td>Malwa Fasal</td>
<td>35.</td>
</tr>
<tr>
<td>33.</td>
<td>KhetiSewa</td>
<td>36.</td>
</tr>
<tr>
<td>34.</td>
<td>Farm Calculators</td>
<td>37.</td>
</tr>
<tr>
<td>35.</td>
<td>DEE PDKV-Transfer of Technology</td>
<td>38.</td>
</tr>
<tr>
<td>38.</td>
<td>Kisan Sahayak Fatehgarh Sahib</td>
<td>41.</td>
</tr>
<tr>
<td>39.</td>
<td>AgroTech VNMKV</td>
<td>42.</td>
</tr>
<tr>
<td>40.</td>
<td>IPM VNMKV Parbhani</td>
<td>43.</td>
</tr>
<tr>
<td>41.</td>
<td>Malda Krishi Vigyan Kendra</td>
<td>44.</td>
</tr>
<tr>
<td>42.</td>
<td>KVK Faridkot</td>
<td>45.</td>
</tr>
</tbody>
</table>

**II. HORTICULTURE**

<table>
<thead>
<tr>
<th>No.</th>
<th>Project/Programme</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.</td>
<td>ICAR-NRCP Pomegranate</td>
<td>48.</td>
</tr>
<tr>
<td>44.</td>
<td>Solapur Anar</td>
<td>49.</td>
</tr>
<tr>
<td>45.</td>
<td>ICAR-NRCL</td>
<td>50.</td>
</tr>
<tr>
<td>46.</td>
<td>GrapesDSS</td>
<td>51.</td>
</tr>
<tr>
<td>47.</td>
<td>Mango Cultivation IIHR</td>
<td>52.</td>
</tr>
<tr>
<td>49.</td>
<td>Raw Mango Products</td>
<td>54.</td>
</tr>
<tr>
<td>50.</td>
<td>Ripe Mango Products</td>
<td>55.</td>
</tr>
<tr>
<td>51.</td>
<td>Citrus Cultivation</td>
<td>56.</td>
</tr>
<tr>
<td>52.</td>
<td>CCRI-Citrus</td>
<td>57.</td>
</tr>
<tr>
<td>53.</td>
<td>FCinAsom</td>
<td>58.</td>
</tr>
<tr>
<td>54.</td>
<td>Fruitcrops</td>
<td>59.</td>
</tr>
<tr>
<td>55.</td>
<td>Horticultural Package in Assam</td>
<td>60.</td>
</tr>
<tr>
<td>56.</td>
<td>Tomato Cultivation IIHR</td>
<td>61.</td>
</tr>
<tr>
<td>57.</td>
<td>SabjeeGyan</td>
<td>62.</td>
</tr>
<tr>
<td>58.</td>
<td>TuberGuru</td>
<td>63.</td>
</tr>
</tbody>
</table>
59. Scientific cultivation of Oyster mushroom
60. ICAR-Mushroom
61. Oil Palm Cultivation Practices
62. Oil Palm Nutrient Management
63. Oil Palm Pest Management
64. Oil Palm Disease Management
65. E-kalpa
66. Turmeric Cultivation
67. Seed Spices Info
68. ICAR IISR Black pepper
69. ICAR-DMAPR

III. VETERINARY
70. IVRI-Shukar Palan App (Pig Farming)
71. IVRI-Pashu Prajanan (Animal Reproduction)
72. E-Pashupalan
73. Infoequine
74. LDF-Livestock Disease Forewarning
75. Hoof Care
76. Cattle Dentition
77. TANUVAS Vet Micro
78. Feed Calculator
79. Training Calendar

IV. DAIRY
80. Indigenous Dairy Products
81. Ecodairy
82. Food safety
83. ICAR-NIANP Feed Chart
84. Dairy Kannada
85. Fodder Kannada

V. POULTRY
86. Farmer Friendly Poultry
VI. FISHERIES
87. Vanami ShrimpApp 98
88. mKRISHI Fisheries 99
89. ICAR-CIFT 100

VII. NATURAL RESOURCE MANAGEMENT (NRM)
90. Plant Nutrition 102
91. Soil Nutrient Manager 103
92. Nutrient Deficiency Diagnoser and Manager for Apple (NDDMA) 104
93. MGR-Portal (Microbial Genetic Resource) 105
94. Urvara 106
95. Fertilizer Calculator - Goa 107
96. Digital Soil Health Card 108
97. Saur Shakti ICAR 109
98. PhuleJal 110
99. PIS (Phule Irrigation Scheduler) 111
100. VNMMKV 112
101. mKRISHI Paws - IISWC 113
102. GypCal-Sodic Soil Reclamation 114
103. Havaamaana-Krishi 115
104. MAA Jharkhand Weather 116
105. LRIS Goa 117
106. PCZ Mapper 118

VIII. INTEGRATED
107. Krishi Gyan 120
108. Krishi Vigyan 121
109. Kisan Mitra 122
110. Smart NE Kisan 123
111. Agriculture: FEM@Mobile 124
112. Annada 125
113. KVK App 126
114. KVK Barpeta 127
115. KVK Mobile App 128
116. KVK online AgriMart 129
117. CGKV App 130
INTRODUCTION
Indian agriculture has the predominance of small and marginal farmers. The future of sustainable agriculture growth and food security in India shall be factorized to the performance of small and marginal farmers. Access to timely, adequate, correct technology and related information is among the most important enablers for smallholders to improve productivity sustainably. A number of technologies developed in agriculture and allied sectors do not readily reach the farmers due to low extension worker and farmer ratio and poor delivery mechanism. The diverse agro-ecological, socio-economic and cultural conditions of the Indian farmers calls for different extension approaches as a single system may not be effective in responding to the demands and technological challenges of various types of clients and to reach the rural poor (Rivera et al., 2001; Davis 2008; Birner et al., 2009).

Innovative mechanisms for technology dissemination are required to bring relevant tools, knowledge and knowhow to farmers. The policy framework for agricultural extension by the Ministry of Agriculture and Farmer Welfare, Government of India, also highlights to harness the opportunity for information and communication technology (ICT) to improve the quality and accelerate the transfer and exchange of information to farmers, and ICT is consequently given a high priority, particularly as a tool for providing technologies and improving the marketing aspects of farm enterprises. According to the Food and Agriculture Organization (FAO, 1993), ICT is defined as those technologies used in collecting, processing, storing, retrieving, disseminating, and implementing data and information using microelectronics, optics, and telecommunication and computers. In the era of ICT, mobile technology can, therefore, foster dissemination of required information on technology, market demand and price information; weather, pest, and risk-management information, best practices to meet quality and certification standards.
The mobile phone technology, which is comparatively new form of ICT, provides the electronic capabilities, reaches to customer, provides privacy, anytime and anywhere, contact-less services and most preferred user carry personal item (Nierinck, 2008). World Bank, in one of its studies on mobile telephony highlighted most sought benefits of mobile phone technologies over its counterparts, those are i) are owned by more people, ii) provide delivery in an instant, more convenient way, iii) can deliver personalized information to individual ownership, iv) are cheaper to deploy, and v) provide other functions such as voice communication (World Bank, 2012).

Keeping the needs of Indian farmers in mind, various applications and services have been deployed to provide orientation for markets (input, output) prices, availability status, agricultural extension, social connectivity and finally financial support systems. The Indian Council of Agricultural Research (ICAR) being the apex organization for frontline extension education has also embraced the advantages of ICT revolution. As a result, several commodity institutes across the country have developed the farmer-friendly mobile Apps for crops like chickpea, rice, millets, sodic soil management, etc. Likewise, the exhaustive network of 693 KVKs across all the districts of the country have also developed some mobile Apps as per specific requirements of their district which are gaining popularity among farmers and other user categories. These Apps offer valuable information to the farmers, including package of practices of different crops, horticulture, veterinary, dairy, fisheries, education, market prices of various commodities, weather related information, advisory services, etc. These Apps are contributing significantly to production and productivity of farmers and can boost farming in India. Further it is solving problems of farmers at doorstep, providing information about various schemes and improve their livelihoods and awareness. In future, these interventions will have a far reaching impact on the rural economy.
I. CROPS
**RiceXpert**

- *App* developed by National Rice Research Institute, Cuttack in 2017.

- RiceXpert is developed for the farmers to provide information in real time on insect pests, nutrients, weeds, nematodes and disease-related problems, rice varieties for different ecologies, farm implements for different field and post-harvest operations.

- *App* as a diagnostic tool in rice fields and make customize queries for quick solution through text, picture and voice.

- The *App* has web-based application systems for instant solution.

- Provides news, announcement and advisory services, frequently asked questions on the related subject.

- *App* supports English language.

- 10000 users downloaded the *App*, Star rating 4.4/5.

- *App* available on Google play store.

RKMP Rice Vocs

- **App** developed by Indian Institute of Rice Research, Hyderabad, Telangana in 2015.
- Features include 2500 terms related to rice crop arranged in alphabetical manner.
- For extension professionals and other stakeholders, this act as a ready reckoner in getting right meaning about different technical terms.
- A compendium of rice related vocabulary.
- **App** supports English language.
- 500 users downloaded the **App**, Star rating 5/5.
- **App** available on Google play store.
  
  https://play.google.com/store/apps/details?id=cdac.ricevoc.in

---

Rice Vocs
A Compendium of Rice Related Vocabulary

Rice Knowledge Management Portal (www.rkmp.co.in)

Mobile App Developed by C-DAC, Hyderabad

---

Search Word

Search Word

Race

Meaning

A genetically and often geographically distinct mating group within a species; or a group of pathogens that infect a given set of plant varieties.
Rice IFC
(Insecticide & Fungicide Calculator)

- App developed by ICAR-National Centre for Integrated Pest Management (NCIPM), New Delhi in 2017.
- Features include information on chemical and biological insecticides and fungicides.
- Weather based predictions of insect pests and diseases of rice.
- App supports English language.
- 100 users downloaded the App, Star 3/5 rating.
- App available on Institute website and Google play store.
Rabi Sorghum

- Mobile App developed by Krishi Vigyan Kendra, Gadag, Karnataka in 2015.
- Features include offline and online mode of crop management practices for Rabi sorghum.
- Information about seeds, fertilizers, market prices (only post harvest technologies) including seed treatment, sowing season and time, pest & diseases with their management and value added products.
- App supports Kannada language.
- 1452 users downloaded the App, Star rating 3/5.
- App available on Google play store.
Jwari (Sorghum)

- Features include offline and online mode for sorghum cultivation and management.
- Information on sorghum diseases and pests with images.
- App supports Marathi language.
- 1000 users downloaded the App, Star rating 4.7/5.
- App available on Google play store.

• App developed by Anand Agricultural University in association with Ikhedut in 2013.

• Features include offline and online mode information on food grain production.

• FAQ – Farmers raise query and scientists provide answers.

• Uploading of image and video facility.

• App supports Gujarati language.

• 500 users downloaded the App, Star rating 3/5.

• App available on Google Play store.

https://play.google.com/store/Apps/developer?id=ikhedut
• **App** developed by ICAR- Indian Institute of Pulses Research, Kanpur in 2016.

• Features include information related to improved chickpea varieties, crop production and protection technologies for management of insect pest and diseases, post-harvest technologies, information related to market price and weather for making informed decisions.

• Flow of information between the farmers and pulse researchers chickpea farmers receive solutions to the specific problems faced by them, right from the fields.

• Backed by a strong team of chickpea researchers working across the country for providing solutions to the queries made and related updates.

• **App** supports English and Hindi languages.

• 1000 users downloaded the **App**, Star rating 4.9/5.

• **App** available on Google play store.

Cane Adviser

- **App** developed by ICAR-Sugarcane Breeding Institute, Coimbatore, Tamil Nadu in 2017.
- Features include sugarcane varieties, production and protection technologies and fertilizer schedule.
- Information from planting to harvest of sugarcane with text and relevant graphics.
- Scheduler **App**, tailor-made for each individual registered user and reminder messages are popped up on real time mode.
- **Query handler** helps to raise queries as text or in graphic form that are replied via SMS / email.
- **App** supports English, Tamil and Hindi languages.
- 1000 users downloaded the **App**, Star rating 4.7/5.
Cotton (Kapus)

- Features include offline and online mode, information on cotton cultivation for Marathwada (Maharashtra) with useful information on package of practices of cotton such as pest and disease management, seeds, fertilizer management, irrigation, critical growth stages, etc.
- Best resource for farmers, extension workers, researchers etc.
- App supports Marathi language.
- 10000 users downloaded the App, Star rating 4.4/5.
- App available on Google play store.

Soybean-Gyan
(सोयाबीन ज्ञान)

- App developed by ICAR-Indian Institute of Soybean Research, Indore, Madhya Pradesh and TCS (m-Krishi) in 2017.
- Features include seeds, soybean varieties, their maturity duration, yield potential, suitability in agro-climatic zones, recommended package of practices, controlling measures for managing insect-pests and diseases and weed management.
- Information on market price of soybean in different mandis, weather forecasting, provision of soybean calendar wherein farmer can keep records of different operations date-wise, send images of diseased crops to experts, replies for queries and any other information
- App supports Hindi language.
- 1000 users downloaded the App, Star rating 4.4/5.
- App available on IISR website and Google Play store.
  https://iisrindore.icar.gov.in/
• Features include information on sesame and sunflower viz., varieties, suitable cropping systems, pests, diseases, AICRP centres and commodity markets.
• App supports English and Telugu languages.
• 28 users downloaded the App, Star rating 3/5.
• App available on Google play store.

- Features include information on sunflower, safflower, castor and sesame farming viz. agronomic practices, production technology, crop management, insect management, disease management, weeds management, food uses and health benefits.
- Basic and strategic research to augment the productivity of castor, sunflower, safflower and sesame.
- App supports English language.
- 100 users downloaded the App, Star rating 3/5.
- App available on Google play store.
  
ICAR IIOR Castor

- Features include information on castor viz., agronomic practices, cultivars, state-wise preferred varieties and hybrids, intercropping systems recommended for different states, insect pests, diseases, AICRP centres and commodity markets, important APMC’s trading of castor.
- Application supports English language.
- 50 users downloaded the App, Star rating 3/5.
- Application available on Google Play store.

ICAR IIOR Sunflower

- Features include information on sunflower viz., agronomic practices, cultivars, state-wise preferred varieties and hybrids, intercropping systems recommended for different states, insect pests, diseases, AICRP centres and commodity markets, important APMC’s trading of sunflower.
- **App** supports English language.
- 35 users downloaded the **App**, Star rating 3/5.
- **App** available on Google play store.


---

Sunflower is mainly grown for its oil. The oil is used for culinary purposes, in preparation of vanaspati and in the manufacture of soaps and cosmetics. It is especially recommended for heart patients. Its cake and thalamus are rich in protein and are used as a cattle and poultry feed and has confectionary value. It is a short duration crop and is widely adopted to be grown in different seasons, soils and cropping systems.
ICAR IIOR Safflower

• Features include information on safflower viz., agronomic practices, cultivars, state-wise preferred varieties and hybrids, intercropping systems recommended for different states, insect pests, diseases, AICRP centres, commodity markets and APMC’s trading safflower.
• App supports English language.
• 34 users downloaded the App, Star rating 3/5.
• App available on Google play store.

ICAR IIOR Sesame

- Features include information on sesame viz., agronomic practices, cultivars, state-wise preferred varieties and hybrids, intercropping systems recommended for different states, insect pests, diseases, AICRP centres, commodity markets and APMC’s trading sesame.
- App supports English language.
- 45 users downloaded the App, Star rating 3/5.
- App available on Google play store.

ICAR IIOR Biocontrols

- Features include information on *Bacillus thuringiensis* (Bt) which is a gram positive ubiquitous soil bacterium producing an insecticidal toxin, advantages, source of availability, varieties and suitable cropping systems.
- Information on Trichoderma seed treatment benefits, disease control and dosage.
- **App** supports English language.
- 15 users downloaded the **App**, Star rating 3/5.
- **App** available on Google play store.

Fodder App

- **App** developed by Kerala Veterinary and Animal Sciences University, Wayanand, Kerala in 2017.
- Features include information on different varieties of fodder and their cultivation method and productivity with pictures.
- Support the entrepreneurship on fodder cultivation to plan business.
- Provides end to end information about fodder viz., varieties, soil and weather suitable, fertilizer required, cultivation practices, nutrition content, harvesting and yield etc.
- **App** supports English language.
- 600 users downloaded the **App**, Star rating 4.8/5.
- **App** available on University website.
  www.kvasuleap.in
• App developed by Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra in 2017.
• Features include offline information on weed management of crops viz., cotton, soybean, oilseeds, paddy, sugarcane, wheat, sorghum.
• Important information on agricultural implements, agricultural education, research, extension education programmes and weed management.
• Facilities of uploading of images, information and feedback.
• App supports Marathi language.
• 500 users downloaded the App, Star rating 4.8/5.
• App available on University website and Google play store. 
  https://www.pdkv.ac.in/?p=11966
Weed Manager

- Some features are offline and some query-based features are online, allow users to scout crop name and identify common dominated weeds of that particular crop along with their control measures.
- Provides advice for the control of weeds in vegetables crop along with some parasitic weeds.
- App supports English language.
- 1748 users downloaded the App, Star rating 4.8/5.
- App available on Google play store.
• App developed by ICAR-Indian Agricultural Research Institute, New Delhi in 2017.

• Features include various nematodes that affect the crops and their management.

• App considers only the nematodes that are found in rice and wheat crops.

• Provides the user with various symptoms and methods to detect, prevent and cure the nematode that affects crop with the help of visual aid.

• App supports English and Hindi languages.

• 500 users downloaded the App, Star rating 5/5.

• App available on Google play store.

Micromitra

- **App** developed by ICAR- National Bureau of Agriculturally Important Microorganisms, Mau, Uttar Pradesh in 2017.
- Features include information on various micro-organisms, bio-fertilizers, biocontrol agents and decomposers.
- Information about liquid formulation of NPK providing bacteria for various crops, advantages, application, dosages, precautions and cost.
- **App** supports English and Hindi languages.
- 100 users downloaded the **App**, Star rating 5/5.
- **App** available on Institute website and Google play store. 
  http://www.mgrportal.org.in/
Emausamhau Krishi Mausam Seva
(ई-मौसम एच ए यू सेवा)

• App developed by CCS Haryana Agricultural University, Hisar in 2017.
• Features include information related to agriculture like district weather forecasts, present Weather, weather based crop advisory and crop package and practices
• Provide information on minimizing farm losses due to abnormal weather/extreme weather and enhance farm productivity with efficient management of day-to-day farm operations.
• Enhance the profit through reducing input costs for farm management or through increasing productivity by minimizing farm losses due to weather vagaries.
• App supports Hindi language.
• 5000 users downloaded the App, Star rating 4.5/5.
• App available on Google play store.
VNMKV कोरडवाहू शेतीचे सुधारीत तंत्रज्ञान
(Dry land Cultivation)

• App developed by Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra in 2017.

• Features include package of practices of crops for dry land cultivation for sustainable productivity under changing climate situation, importance of soil and water conservation, improved agricultural implements, crop cultivation and weed management in dry land cultivation.

• Information on weather and dry land cultivation in Marathwada.

• App supports Marathi language.

• 1000 users downloaded the App, Star rating 4.7/5.

• App available on Google play store.

Mobile Farm Solutions (Q&A)

- **App** developed for KVKs by Department of Agriculture, Government of Meghalaya and Directorate of Agriculture in 2017.
- Feature include solution of problems related to crops by the Scientist/Subject Matter Specialist.
- **App** helps the farmers to report problems on the crops, soil, pests, etc to the Scientist or SMS of KVKs in their respective districts.
- Transmitting images of diseased crops to experts, quick replies for queries and any other information.
- **App** supports English language.
- 100 users downloaded the **App**, Star rating 3/5.
- **App** available on KVK website and Google play store.

http://www.megagriculture.gov.in/PUBLIC/download_dwd_androidapps.aspx

Krishi Sparsham

- App developed by KVK-Pathanamthitta District, Kerala in 2016.
- Features include online and offline information on pest and diseases management of major crops such as Paddy, Banana, Vegetables and Coconut in Kerala.
- Developed under the project on “Pest surveillance based crop advisory for plant health management in Pathanamthitta district”.
- App supports Malayalam language.
- 750 users downloaded the App and use it, Star rating 4.3/5.
- App available on Google play store.

Kheti Gyan

- Features include photographs of crop information and farm machinery, major crop information in offline mode.
- Farmers can check market price of different crops as it is linked with Agrimarket mobile App.
- App supports English and Punjabi languages.
- 1921 users downloaded the App, Star rating 4.8/5.
- App available on KVK Jalandhar website and Google play store.
Agrowbook

- **App** developed by ICT based Company in 2015 in association with ICAR – Academy of National Agricultural Research Management, Rajendranagar, Hyderabad, Telangana.
- Features include seeds, fertilizers, market prices weather forecasting and equipment/machineries, nursery plants, organic/herbal farm inputs.
- Agrowblogs, Agrowtube and store are available to upload images, blogs to share views on availability of inputs, categories exists for seeds, trainings, events, Youtube loads, chats and farmers’ problems sharing.
- Photos of the crop can be uploaded which is answered by the expert.
- **App** supports English language.
- 1500 users downloaded the **App**, Star rating 5/5.
- **App** available on Google play store.
  
mAgIDS

- App developed by Punjab Agricultural University, Ludhiana, Punjab in 2014.
- Features include offline and online mode, crop disease database, send images of diseased crops to experts, quick replies for queries and any other information.
- App supports Hindi, English and Punjabi languages.
- 600 users downloaded the App, Star rating 4.8/5.
- App available on Google play store.

• App developed by University of Agricultural Sciences, Department of Plant Pathology, College of Agriculture, Bengaluru, Karnataka in 2014.
• Features include online crop disease database, send images of diseased crops to experts, quick replies for queries and any other information embedded.
• App supports English and Kannada languages.
• 7500 users downloaded the App, Star rating 4.6/5.
• App available on Google play store.

Khetyiyok

- **App** developed by Krishi Vigyan Kendra, Dhemaji, Assam in 2017.
- Features include crop disease database, send images of diseased crops to experts, quick replies for queries and any other information.
- **App** supports Assamese language.
- 40 users downloaded the **App**, Star rating 3/5.
- **App** available on KVK Dhemaji website.
  http://www.kvkdhemaji.nic.in/
Malwa Fasal

- Features include information about seeds and fertilizers and package of practices in audio form through Google play console.
- Information on field preparation, seed treatment and sowing, nutrient management, irrigation, weed management and harvesting.
- App supports English and Hindi languages.
- 317 users downloaded the App, Star rating 4.2/5.
- App available on Google play store.

KhetiSewa

- Features include information about KVK present and past events, package of practices, database, faculty, etc. interact with the farmers and to obtain feedback and suggestions.
- App supports English and Punjabi languages.
- 30 users downloaded the App, Star rating 3/5.
- App available on Google play store.
  https://play.google.com/store/apps/details?id=kvkamristsar.example.krishisewa
• App developed by University of Agricultural Sciences, Bengaluru, Karnataka in 2015.
• Features include offline use of exact quantity of seeds and fertilizers. The app is useful in saving inputs and provides accurate quantity to be applied in crops.
• App supports English, Hindi, Kannada, Tamil, Telugu, Marathi, Bengali and Gujarati languages.
• 50000 users downloaded the App, Star rating 4.3/5.
• App available on Google play store.
DEE PDKV-
Transfer of Technology

- Developed by Directorate of Extension Education, Dr. PDKV, Akola, Maharashtra in 2017.
- Features include offline and online mode of information on crops (cotton, soybean, oilseeds, paddy, sugarcane, wheat, sorghum and agricultural implements).
- Agricultural education, research and extension education programmes, technology developed by University.
- Feedback or contact for query to ATIC on toll free helpline.
- App supports English and Marathi languages.
- 1000 users downloaded the App, Star rating 4.7/5.
- App available on Directorate website and Google play store.
  https://www.pdkv.ac.in/?p=11966
Phule Krishidarshani

- Provide information about crops, instrument and modern technology for additional growth of agricultural production.
- Ability to upload images, availability of public forum groups for discussions and sharing of new ideas and practices of crops etc.
- Queries are answered by E-mail, SMS and Phone call.
- App supports Marathi language.
- 1000 users downloaded the App, Star rating 4.3/5.
- App available in Google play store.

Kisan Sahayak Ropar

- Features include offline crop disease database, send images of diseased crops to experts, quick replies for queries and any other information, IMD weather for Ropar embedded, seeds portal available.
- Farmers can check market price of different crops as it is linked with Agrimarket mobile App.
- App supports English and Punjabi languages.
- 1000 users downloaded the App, Star rating 4.8/5.
Kisan Sahayak Fatehgarh Sahib

- **App** developed by Krishi Vigyan Kendra, Fatehgarh Sahib, Punjab in 2017.
- Features include list of available seeds at KVK, current market value of crops and weather forecasting, send images of diseased crops to experts, quick replies for queries and any other information, IMD weather for Fatehgarh Sahib embedded, seeds portal.
- All the new recommended technologies are disseminated among the farmers and farmwomen.
- **App** supports English and Punjabi languages.
- 100 users downloaded the **App**, Star rating 3/5.
- **App** available on Google play store.

https://play.google.com/store/apps/details?id=h_dev.kisansahayakfgs
AgroTech VNMKV

- **App** developed by Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra in 2017.
- Features include both online offline information to provide complete details about farming and its technologies, IMD weather for Parbhani embedded, seeds portal available.
- Information about University, agricultural implements, kharif, rabi and zaid crops including horticultural crops.
- **App** supports Marathi language.
- 10000 users downloaded the **App**, Star rating 4.7/5.
- **App** available on Google play store.

• App developed by Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra in 2017.

• Features include offline and online mode of crop disease database, send images of diseased/pest crops to experts, replies for queries and any other information.

• App supports Marathi language.

• 10000 users downloaded the App, Star rating 4.3/5.

• App available on Google play store.
Malda Krishi Vigyan Kendra

- App developed by Malda Krishi Vigyan Kendra, Ratua, Malda, West Bengal in 2017.
- Features include information on seeds, live market price and weather forecast.
- Provide information on vocational training to the practicing farmers including farm women, youth and extension functionaries in improved technologies in the field of agriculture, animal husbandry, fisheries and other allied enterprises.
- App supports English, Bengali, Hindi and Nepali languages.
- 50 users downloaded the App, Star rating 5/5.
- App available on KVK Malda website and Google play store.
  http://www.maldakvk.in/malda-kvk-mobile-app
KVK Faridkot

- **App** developed by KVK Faridkot, Punjab Agricultural University, Ludhiana, Punjab in the year 2018.

- Features include information and activities of KVK, Faridkot, package of practices of PAU, online report of soil and water testing of PAU, feedback on training course, Faridkot action plan and trainings of KVK, profile of Faridkot and farmer query.

- **App** supports English language.

- 10 users downloaded the **App**, Star rating 3/5.

- **App** available on website.
  
  [https://snappy.appypie.com/index/app-download/app_id/e29903156d5e](https://snappy.appypie.com/index/app-download/app_id/e29903156d5e)
II. HORTICULTURE
ICAR-NRCP Pomegranate

- App developed by National Research Centre on Pomegranate, Solapur, Maharashtra in 2017.
- Features include scientific pomegranate production practices and educate pomegranate growers.
- Weather forecast of the region, daily market rates of pomegranate across India.
- Supports English, Hindi and Marathi languages.
- 10000 users downloaded the App, Star rating 4.3/5.
Solapur Anar

- Features include information on pomegranate viz., nursery and orchard establishment, production of quality planting material, nutrient management, water management, disease and pest management, post-harvest management in pomegranate, process and value addition, current market rates availability and about NRCP, facilities & laboratories information including photo gallery and daily weather data.
- App supports Hindi, Marathi and English languages.
- 4365 users downloaded the App, Star rating 4.8/5.
- App available on Google play store.
App developed by ICAR-National Research Centre on Litchi, Muzaffarpur, Uttar Pradesh in 2017.

Features include crop disease database, send images of diseased crops to experts, replies for queries and any other information, IMD weather Muzaffarpur embedded, ongoing research projects, and the achievements in litchi R&D.

Technical bulletins, technology folders, popular articles, success stories, books, brochures etc, can be accessed and downloaded as a PDF.

App supports English and Hindi languages.

10 users downloaded the App, Star rating 5/5.

App available on Institute website and Google play store. http://www.nrclitchi.org/
GrapesDSS

- App developed by ICAR-National Research Centre for Grapes, Pune, Maharashtra in 2017.
- App educates grape growers about scientific grape production practices.
- Improve farmer’s ability to take crucial management decisions keeping the economics and long term prospects of the standing crop.
- Provide recommendations to a grape grower based on crop data, farm data, and prevailing weather conditions that will support or assist grower’s decision making capacity.
- App supports English language.
- 500 users downloaded the App, Star rating 3.3/5.
Mango Cultivation IIHR

- **App** developed by ICAR-Indian Institute of Horticultural Research, Bengaluru, Karnataka in 2016.

- Features include offline Mango crop production viz., soil & climate requirement, propagation, spacing, planting, training & pruning, INM, irrigation and harvesting.

- The crop management aspects comprises of disease management affecting mango crops, viz., anthracnose, blossom blight, leaf blight, powdery mildew, dieback, etc., and the pest management modules comprises of infestation of fruit fly, mango hopper, stone weevil, mealy bug, shoot borer, stem borer etc.

- **App** supports English language.

- 2851 users downloaded the **App**, Star rating 4.7/5.

- **App** available on Institute website and Google play store. 
Aam ki Suraksha-ICAR Patna

- **App** developed by ICAR- Research Complex for Eastern Region, Patna, Bihar in 2018.
- Features include offline information on pests and disease of mango.
- **App** allows farmer to select the pest from a grid view of images making it easy for the user to identify the pests, time of damage, time of occurrence and control measures of the selected pest.
- **App** supports Hindi language.
- 100 users downloaded the **App**, Star rating 5/5.
- **App** available on Google play store.

Raw Mango Products

• App developed by ICAR- Central Institute for Subtropical Horticulture, Lucknow, Uttar Pradesh in 2017.

• Features include making and relishing Indian styled raw mango products.

• Information on reducing post harvest losses of raw mangoes, value added product of Mango.

• App supports Hindi language (Audio feature also available).

• 100 users downloaded the App, Star rating 4.9/5.

• App available on Google play store.

**Ripe Mango Products**

- **App** developed by ICAR-Central Institute for Subtropical Horticulture, Lucknow, Uttar Pradesh in 2017.
- Features include preparation of ripe mango product such as juices, nectars, drinks, jams, fruit cheese, ice cream, yoghurts, puddings, filling, bakery products and bars.
- **App** supports Hindi language (Audio feature also available).
- 100 users downloaded the **App**, Star rating 4.9/5.
- **App** available on Google play store.

App developed by Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra in 2014.

Features include offline complete information about citrus cultivation, processing and its technologies.

Information on soil preparation, selection of varieties, care to be taken during and after cultivation of citrus.

App supports Marathi language.

5000 users downloaded the App, Star rating 4.2/5.

App available on Google Play store.

CCRI-Citrus

App developed by ICAR-Central Citrus Research Institute, Nagpur, Maharashtra in 2017.

Features include effective and citrus cultivation practices, monthly calendar of operations, etc.

Provides online and offline information to the farmers and other clientele groups.

Includes information about the Institute, Nagpur mandarin cultivation practices, procedure for procurement of planting material, monthly calendar of operations, nursery production technologies, farm advisory services, CCRI publications and services of CCRI.

App supports English, Hindi and Marathi languages.

1000 users downloaded the App, Star rating 4.5/5.

App available on Institute website and Google play store. www.ccringp.org.in
FCinAsom

- App developed by Krishi Vigyan Kendra, Dibrugarh, Assam Agricultural University in 2017.
- Features include package of practices of fruit crops (pineapple, lemon, papaya, mango, guava, arecanut, cashewnut, coconut, sapota, litchi, betelvine and jackfruit).
- Information on soil preparation, treatment of planting material, manure and fertilizer, cultural operation etc.
- Farmers can check market price of different crops as it is linked with Agrimarket mobile App.
- App supports English language.
- 1088 users downloaded the App, Star rating 3/5.
- App available on University website.
  http://kvkdibrugarh.nic.in/apps.htm
Fruitcrops

- **App** developed by ICAR-Indian Institute of Horticultural Research, Bengaluru, Karnataka in 2017.
- Features include improved varieties of fruits (mango, papaya, grapes, guava, pomegranate, custard apple, fig, jackfruit, pummelo & underutilized fruits) developed by the institute.
- Information on fruit technology viz., Annona hybrid Arka Sahan hand pollination, crop regulation and technologies in grapes, high density planting and rejuvenation of old orchards in mango, high density planting in fruit crops, seed production and storage in papaya and water and nutrient management in banana.
- **App** supports English language.
- 350 users downloaded the **App**, Star rating 4.8/5.
- **App** available on Google play store.

Horticultural Package in Assam

- App developed by Directorate of Extension Education, Assam Agricultural University, Jorhat in 2017.
- Features include package of practices of horticulture crops.
- App supports Assamese language.
- 100 users downloaded the App, Star rating 3/5.
- App available on University website.
  http://aau.ac.in
Tomato Cultivation IIHR

- **App** developed by ICAR-Indian Institute of Horticultural Research, Bengaluru, Karnataka in 2017.
- Features include offline tomato crop production viz., land preparation, use of bio agents, nursery raising and seed rate, transplanting, drip irrigation, fertilizers, inter-cultivation, IPM, disease and pest management.
- **App** supports English language.
- 7390 users downloaded the **App**, Star rating 4.5/5.
SabjeeGyan

- **App** developed by ICAR-Indian Institute of Vegetable Research, Varanasi, Uttar Pradesh in 2017.
- Features include vegetable production related information, best cultivation practices on important vegetable crops, insect and disease management information and weather services.
- **App** supports English and Hindi languages.
- 45000 users downloaded the **App**, Star rating 3/5.
- **App** available on Institute website. [https://iivr.tcsmskrishi.com/mKRISHI_IIVR/](https://iivr.tcsmskrishi.com/mKRISHI_IIVR/)
TuberGuru

- **App** developed by ICAR-Central Tuber Crops Research Institute, Thiruvananthapura, Kerala in 2018.
- Features include information on seeds, fertilizers, varieties, agro techniques, manures and fertilizers, intercultural operations, intercrops, pests and diseases of important tropical tuber crops like cassava, sweet potato, yams, elephant foot yam and taro.
- **App** supports English and Malayalam languages.
- 50 users downloaded the **App**, Star rating 3/5.
- **App** available on Institute website.
  http://www.ctcri.org/

Horticulture
Scientific Cultivation of Oyster Mushroom

- App developed by Krishi Vigyan Kendra, Kamrup in 2018.
- Features include scientific cultivation practices and production technology of Oyster mushroom in Assam.
- Oyster mushroom grows on fresh or fermented straw and it does not require composted substrate for growth. Fresh mushrooms have a shelf life of 24-48 hrs even at room temperature.
- App supports Assamese language.
- 50 users downloaded the App, Star rating 3/5.
- App available on KVK Kamrup website and you tube.

http://kvkkamrup.nic.in/
https://www.youtube.com/watch?v=ij3hkv6QAOk
ICAR-Mushroom

- App developed by ICAR-Directorate of Mushroom Research, Solan, Himachal Pradesh in 2016.
- Features include nutritional and medicinal facts, photo of cultivated edible and poisonous mushrooms with description, technologies developed by ICAR-DMR, Mushroom products photographs and its ingredients, cultivation techniques of different types of mushroom.
- In-App Message service provides crop advisory and news-events updates.
- App supports English language.
- 6000 users downloaded the App, Star rating 4.6/5.
- App available on Google play store.

Oil Palm Cultivation Practices

- Features include offline recommended practices of oil palm cultivation in India. Management of oil palm plantations.
- App supports English, Hindi and Telugu languages.
- 674 users downloaded the App, Star rating 3.2/5.
- App available on Institute website and Google play store. 
  https://mApps.mgov.gov.in
Oil Palm Nutrient Management

- Features include offline information on symptoms of nutrient deficiencies viz. nitrogen, potassium, phosphorous, boron, magnesium, iron, copper, zinc, manganese and other disorders in oil palm along with management practices.
- App supports English, Hindi and Telugu languages.
- 258 users downloaded the App, Star rating 3.8/5.
- App available on Institute website and Google play store.

https://mApps.mgov.gov.in
Oil Palm Pest Management

• App developed by ICAR-Indian Institute of Oil Palm Research, Pedavegi, Andhra Pradesh in 2016.

• Features include offline information on symptoms of pest infestation viz., rhinoceros beetle, scales, mealy bugs, slug caterpillar, bag worm, chafer beetles, termites, leaf webworm, birds, rats and wild animals in oil palm and their management.

• App supports English, Hindi and Telugu languages.

• 246 users downloaded the App, Star rating 3/5.

• App available on Institute website and Google play store.

https://mApps.mgov.gov.in
Oil Palm Disease Management

- **App** developed by ICAR-Indian Institute of Oil Palm Research, Pedavegi, Andhra Pradesh in 2016.

- Features include offline information on symptoms of pest infestation viz., rhinoceros beetle, scales, mealy bugs, slug caterpillar, bag worm, chafer beetles, termites, leaf webworm, birds, rats and wild animals in oil palm and their management.

- **App** supports English, Hindi and Telugu languages.

- 434 users downloaded the **App**, Star rating 3/5.

- **App** available on Institute website and Google play store.
  - [https://mApps.mgov.gov.in](https://mApps.mgov.gov.in)
E-kalpa

- **App** developed by ICAR- Central Plantation Crops Research Institute, Kasaragod, Kerala in 2016.
- Features include offline cloud based interactive mobile application for plantation crop (coconut, arecanut and cocoa) farmers and stakeholders.
- Farmers can report their field problems in real time by taking a photograph or video clip or typing their problems or voice (podcast). Scientists then diagnose the problem and deliver solutions.
- **App** supports English, Malayalam, Kannada, Hindi languages (at present) and Bengali, Tamil, Telugu, Assamese (in progress).
- 1600 users downloaded the **App**, Star rating 4.6/5.
- **App** available on Google play store.

App developed by Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra in 2016.

Features include offline information about turmeric cultivation and processing technologies.

Information on different uses of turmeric, types, growing stages, land preparation etc.

App supports Marathi language.

10000 users downloaded the App, Star rating 4.6/5.

App available on Google play store.

Seed Spices Info

- **App** developed by ICAR-National Research Centre on Seed Spices, Ajmer, Rajasthan in 2017.

- Features include crop production, crop improvement, crop protection, value addition and transfer of technology.

- Crop disease database, send images of diseased crops to experts, quick replies for queries and any other information.

- **App** supports Hindi and English languages.

- 68 users downloaded the **App**, Star rating 3/5.

- **App** available on Google play store.
  
ICAR IISR Black pepper

- Features include information on cultivation, management, plant protection, planting material availability and fertilizer recommendation of Black Pepper.
- App supports English, Hindi and Telugu languages.
- 434 users downloaded the App, Star rating 4.8/5.
- App available on Google play store.
• *App* developed by ICAR-Directorate of Medicinal and Aromatic Plants Research, Anand, Gujarat in 2016.

• Features include information of medicinal and aromatic crops identification, cultivation techniques and good agriculture practices.

• Weather forecasting is provided through links.

• *App* supports English language.

• 405 users downloaded the *App*, Star rating 4.6/5.

• *App* available on Google play store.

III. VETERINARY
IVRI- Shukar Palan App
(Pig Farming)

- App developed by ICAR- Indian Veterinary Research Institute, Bareilly, Uttar Pradesh in 2018.
- Features include offline to impart scientific knowledge and skills to the graduating veterinarians, field veterinary officers, developmental organizations and entrepreneurs for promoting commercial pig farming.
- Educate the prospective entrepreneurs about all the aspects of scientific pig farming - selection of right breed, housing, scientific feeding, low cost feeding, breeding management and complete health care. Helps entrepreneurs to market their pigs and piglets.
- Specific email support for users.
- App supports Hindi language.
- 500 users downloaded the App, Star rating 5/5.
- App available on Google play store.
IVRI-Pashu Prajahan (Animal Reproduction)

• **App** developed by ICAR-Indian Veterinary Research Institute, Bareilly, Uttar Pradesh in 2017.

• Features include offline reproductive diseases/disorders in cattle and buffaloes viz., anoestrus, repeat breeding, silent estrus/silent heat, uterine torsion, dystocia, abortion, uterine prolapse, retention of foetal membranes/placenta, metritis, brucellosis, campylobacteriosis and IBR-IPV which leads to economic losses.

• Additionally, the **App** provides basic information on heat detection and artificial insemination.

• **App** supports English, Hindi, Punjabi, Bangla, Assamese, Gujarati and Tamil languages.

• 5000 users downloaded the **App**, Star rating 4.7/5.

• **App** available on Google play store.

E-Pashupalan

- Mobile App developed by Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, Haryana in 2014.
- Features include offline information about dairy farming, sheep & goat farming, Pig farming, cow and buffalo breeds, housing management, nutrition management, reproductive management, artificial insemination, signs of heat etc., disease information, prevention and control of different diseases, main clinical signs and symptoms of different diseases of animals etc., vaccination and clean milk production.
- App supports Hindi language.
- 50 users downloaded the App, Star rating 3/5.
- App available on University website and Google play store.

http://www.luvas.edu.in/e-pashu-palan.zip
Infoequine

- **App** developed by ICAR-National Research Centre on Equines, Hisar, Haryana in 2017.
- Features include offline knowledge in various aspects of equines with regard to breeds, management, nutrition, diseases, artificial insemination, pregnancy diagnosis, etc.
- Information about diagnostic services, artificial insemination services, provision of semen for production of best quality of mules, horses and donkeys and technologies developed by the centre.
- **App** supports English and Hindi languages.
- 100 users downloaded the **App**, Star rating 4.7/5.
LDF-Livestock Disease Forewarning

- App developed by ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Bengaluru, Karnataka in 2017.
- Features include offline details of clinical samples to be collected in case of outbreaks of the listed diseases for laboratory confirmation.
- Farmers are provided facility for immediate preventive measures in case of positive prediction/disease confirmation.
- App supports English language.
- 50 users downloaded the App, Star rating 3/5.
Hoof Care

- **App** developed by Kerala Veterinary and Animal Sciences University, Wayanand, Kerala in 2017.
- Features include farmers to determine and maintain the hoof to be trimmed for healthy production.
- Farmers can estimate productivity enhancement and cow comfort.
- **App** supports English language.
- 50 users downloaded the **App**, Star rating 3/5.
- **App** available on University website and Google play store.
  www.kvasuleap.in
  https://play.google.com/store/apps/details?id=com.wHoofCare_3852983
Cattle Dentition

- App developed by Kerala Veterinary and Animal Sciences University, Wayanand, Kerala in 2017.
- Features include information to assess the age of cow, goat and dogs to support the farmers while purchasing the animals.
- Farmers can facilitate the determination of age of the animals through anatomy of dentition.
- This is an educational App which provides detail about cattle age and dentition. This application promotes the farmers for cattle dental care to be taken in dairy cattle management.
- App supports English language.
- 600 users downloaded the App, Star rating 3/5.
- App available on University website.
  www.kvasuleap.in
TANUVAS Vet Micro

- Mobile App developed by Department of Veterinary Microbiology, Madras Veterinary College, Tamil Nadu in 2017.
- Features include practical Veterinary Microbiology course as per MSVE 2016 syllabus.
- Course contents with appropriate images. Student can take quiz on Veterinary Microbiology and they can also review their test.
- App supports English language.
- 10 users downloaded the App, Star rating 5/5.
- App available on Google play store.

Feed Calculator

- *App* developed by Tamil Nadu Veterinary and Animal Sciences University in 2017.
- Features include vernacular language which calculates the weight of milch animal in kilograms based on length and girth of the animal, fat percentage, milk yield and calculates the feed requirements.
- *App* supports English and Tamil languages.
- 10000 users downloaded the *App*, Star rating 4.4/5.
- *App* available on Google play store.

Training Calendar

- App developed by Tamil Nadu Veterinary and Animal Sciences University, Chennai in 2017.
- Features include capacity building programmes offered at 20 Veterinary University Training and Research Centres, 3 Farmers Training Centres and 3 Krishi Vigyan Kendras with user friendly menus to browse for centre-wise, district-wise or subject-wise programmes, registration and set up of reminder call.
- Farmers can check market price of different crops as it is linked with Agrimarket mobile App.
- App supports English and Tamil languages.
- 10000 users downloaded the App, Star rating 3.9/5.
- App available on Google play store.

IV. DAIRY
Indigenous Dairy Products

- **App** developed by Kerala Veterinary and Animal Sciences University, Wayanand, Kerala in 2017.
- Features include different milk products, their commercial production, manufacturing technology and inputs required.
- **App** supports English language.
- 600 users downloaded the **App**, Star rating 4.8/5.

According to FSSA, 2006, ice cream means the product obtained by freezing a pasteurized mix prepared from milk and/or other products derived from milk with or without the addition of nutritive sweetening agents, fruit and fruit products, eggs and egg products, coffee, cocoa, chocolate, condiments, spices, ginger and nuts and it may also contain bakery products such as cake or cookies as a separate layer and/or coating. It may be frozen hard or frozen to a soft consistency and shall have pleasant taste and smell free from off flavour and rancidity. It may contain permitted food additives prescribed by FSSA. It may contain permitted stabilizer and emulsifiers are not
Ecodairy

- Features include offline information regarding the existing environment friendly dairy farming practices i.e. breeding, feeding, health care and management. Quick replies for queries and any other information.
- App supports Hindi and English languages.
- 50 users downloaded the App, Star rating 3/5.
Food safety

• App developed by Kerala Veterinary and Animal Sciences University, Wayanand, Kerala in 2017.

• Features include the issues regarding safe food production and important practices to be followed ensuring safe food.

• Farmer can get necessary knowledge in food handling and support entrepreneurs in safe food production.

• App supports English language.

• 100 users downloaded the App, Star rating 3/5.

• App available on Google play store.


• Features include formulating ration for crossbred dairy cow and milch buffalo.

• Farmer can get a guideline for three feeding situation. This is calculated for crossbred cattle and Indian buffaloes.

• The App has been applied to reach even small and marginal dairy farmers, who report to the co-operative milk societies or private entrepreneurs.

• App supports English, Hindi, Kannada, Tamil and Telugu languages.

• 1000 users downloaded the App, Star rating 4.4/5.

• App available on website and Google play store.

http://14.139.158.230/feedchart
• App developed by Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar & Jayalakshmi Agrotech Limited in 2016.

• Features include important cattle and buffalo breeds, breeding management, selection of dairy animal, housing management, feeding management, general care and management of calves, milch animal varieties, diseases, clean milk production, economic dairying, vaccination, feed calculator and record keeping.

• App supports Kannada and Telugu languages.

• 10320 users downloaded the App, Star rating 4.6/5.

• App available on Google play store.

Fodder Kannada

- **App** developed by Department of Veterinary & A.H Extension, Veterinary College, Bengaluru, Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar & Jayalakshmi Agrotech Limited in 2016.

- Provides a repository of information both in audio & visual form, regarding 16 fodders suitable for Karnataka. The soil content, agronomical practices, weather conditions suitable for each fodder, nutrient requirement, nutrient requirement calculator, and expenditure regarding each fodder are provided.

- **App** supports Kannada language.

- 9000 users downloaded the **App**, Star rating 4.4/5.

- **App** available on Google play store.

V. POULTRY
**Farmer Friendly Poultry**

- **App** developed by Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu in 2018.
- Features include offline content to calculate average weight of the flock, total feed consumed, total weight gained, feed conversion ratio, mortality rate, total input cost (feed, medicines, miscellaneous), total revenue generated and total profit/loss from the flock.
- Feature such as ability to upload images, availability of public forum groups for discussions and sharing of new ideas and practices, etc. Queries are answered by E-mail, SMS and Phone call.
- **App** supports English language.
- 80 users downloaded the **App**, Star rating 3/5.
- **App** available on University website.  
  http://kvkjammu.nic.in/#
VI. FISHERIES
Vanami ShrimpApp

- **App** developed by ICAR-Central Institute of Brackishwater Aquaculture, Chennai, Tamil Nadu in 2017.
- Features include management practices of pacific white shrimp farming such as pond preparation, seed selection and stocking, feeding and feed management, soil and water quality management, health management, regulation, food safety and record keeping.
- **App** is updated with modules for on-farm disease diagnosis, risk assessment, calculations for inputs requirement (biomass, feed, minerals, aeration etc.), technical advisories, market intelligence and regulatory guidelines.
- Quick replies for queries and any other information.
- **App** supports Hindi, Telugu and Tamil languages.
- 5000 users downloaded the App, Star rating 4.6/5.
- **App** available on Google play store.

mKRISHI Fisheries

- App developed in collaboration with Tata Consultancy Services (TCS) Innovation Lab – Mumbai, ICAR- Central Marine Fisheries Research Institute and Indian National Centre for Ocean Information Services (INCOIS) Hyderabad in 2017.
- Features include remote sensing data received from NOAA satellites, sea surface temperature and presence of phytoplankton which form the food of several fish species.
- Fishermen can use this service to plan their fishing trip and venture into sea.
- Saving up to 30% diesel cost.
- mKRISHI®Fisheries has been selected as one of the Top20 Social Innovation in a national contest developed by Ministry of External Affairs, Govt. of India and NITI Aayog during Pravasi Bharatiya Divas 2017.
- App supports Marathi and English languages.
- 1000 users downloaded the App, Star rating 4.8/5.
ICAR-CIFT

- App developed by ICAR-Central Institute of Fisheries Technology, Kochi, Kerala in 2017.
- Features include information on basic and strategic research in fishing and processing.
- Design and develop energy efficient fishing systems for responsible fishing and sustainable management.
- Development of implements and machinery for fishing and fish processing.
- App supports English language.
- 100 users downloaded the App, Star rating 5/5.
- App available on Google play store.

https://play.google.com/store/apps/details?id=com.wICAR_CIFT_5775453&hl=en_IN

100 Krishi Gyan – Mobile Apps
VII. NATURAL RESOURCE MANAGEMENT
**पिक पोषण**

*(Plant Nutrition)*

- Features include plant nutrition and elements present in the soil fertilizers used for the plants.
- Provides information regarding major and minor plant nutrients essential for crop growth and symptoms of nutrient deficiency.
- App supports Marathi language.
- 50000 users downloaded the App, Star rating 4.2/5.
- App available on Google play store.

• App developed by ICAR-Research Complex for Eastern Region, Patna, Bihar in 2018.
• Features include fertilizer recommendations based on native soil fertility status and nutritional requirements of the crop to be grown.
• Facilitates answering queries.
• App supports English and Hindi languages.
• 100 users downloaded the App, Star rating 5/5.
Nutrient Deficiency Diagnoser and Manager for Apple (NDDMA)

• **App** developed by ICAR-Central Institute of Temperate Horticulture, Srinagar, Jammu & Kashmir.

• Features include management for curing nutrient deficiency in apple, to optimize yield and reduce yield losses.

• Farmers can view the related information like soil region, physiographic, sub physiographic, landform and land management units etc.

• **App** supports English, Hindi and Urdu languages.

• 50 users downloaded the **App**, Star rating 3/5.

• **App** available on Institute website.
  http://www.cith.org.in/
MGR-Portal
(Microbial Genetic Resource)

• App developed by ICAR-National Bureau of Agricultural Important Microorganisms, Mau, Uttar Pradesh in 2017.
  - Features include search options for general search of microbial accessions by accession number or by name in NAIMCC database, list of microbial accessions in core collection developed based on agriculturally important traits, procurement of microbial cultures from NAIMCC and opinion for query related to microbial germplasm at ICAR-NBAIM, Mau, Uttar Pradesh.
  - App supports English language.
  - 50 users downloaded the App, Star rating 4.8/5.
  - App available on Institute website and Google play store.
    - www.mgrportal.org.in
Urvara

- App developed by ICAR-Research Complex for Eastern Region Patna, Bihar in 2018.
- Features include fertilizer recommendation for a crop based on soil test report/soil health card.
- Provides the user with appropriate dose and cost of the fertilizer for farmers’ area. Facilitates answering queries.
- Assist farmers, scientist and development officers in fertilizer management of field crops, vegetables and fruit crops.
- In-built data on crop specific recommended dose of fertilizers for the Eastern plateau and hill region of India. If soil health card (soil test report) is not available it works out fertilizer requirements on the basis of recommended doses of fertilizers.
- App supports English language.
- 100 users downloaded the App, Star rating 3/5.
Fertilizer Calculator - Goa

- App developed by ICAR – Central Coastal Agricultural Research Institute, Goa in 2015.
- Features include offline soil-test based fertilizer recommender (STFR) of crops.
- Get calculations according to the area of farm or the number of plants/trees.
- Specially customized for Goan farms. (For places outside Goa, try out other Fertilizer Calculator App).
- App supports English language.
- 5000 users downloaded the App, Star rating 4.5/5.
- App available on Google play store.

Digital Soil Health Card

- Features include soil health card of the farmer with recommendation for use of fertilizer for different crops.
- Image based agro advisory to the farmers.
- App supports English language.
- 1000 users downloaded the App, Star rating 4.7/5.
- App available on Google play store.
Mobile App developed by ICAR-Research Complex for Eastern Region, Patna, Bihar in 2018.

Facilitates selection of appropriate pump size considering the user input on crops, plot areas, water table, and drawdown etc.

Features also include number of plots to be irrigated in one day and discharge requirement.

App supports English language.

50 users downloaded the App, Star rating 5/5.

App available on Google play store.

PhuleJal

- **App** developed by Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra in 2017.
- Offline estimates the evapotranspiration (ETr) by different standardized methods for the specific location by fetching the required input weather data from the IMD.
- Innovative step towards irrigation management in real time.
- **App** supports English and Marathi languages.
- 1000 users downloaded the **App**, Star rating 4.9/5.
- **App** available on MPVK website and Google play store.  
  http://www.rkvyiwras.ac.in/software/android-Apps/phule-jal  
PIS
(Phule Irrigation Scheduler)

• App developed by Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra in 2017.

• App provides decision making support for irrigation scheduling for crops based on its growth stage, soil type, the local weather condition, type of irrigation method and efficiency of the irrigation system and time of operation of pump/system for surface, sprinkler and drip irrigation methods for different crops.

• App supports English and Marathi languages.

• 1000 users downloaded the App, Star rating 4.6/5.

• App available on MPVK website and Google play store.
  
  http://www.rkvyiwras.ac.in/software/android-Apps/phule-irrigation-scheduler
  
112 Krishi Gyan – Mobile Apps

VNMKV जलसंवर्धन व जलपुनर्भरण

(Ground Water Enhancement)

- Features include ground water enhancement through artificial recharging and farm pond for rainwater harvesting.
- App supports Marathi language.
- 500 users downloaded the App, Star rating 5/5.
- App available on Google play store.


• App developed by Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra in 2017.
• Features include ground water enhancement through artificial recharging and farm pond for rainwater harvesting.
• App supports Marathi language.
• 500 users downloaded the App, Star rating 5/5.
• App available on Google play store.

mKRISHI Paws - IISWC

- **App** developed by ICAR-Indian Institute of Soil and Water Conservation, Dehradun, Uttarakhand in collaboration with Tata Consultancy Services Limited in 2016.

- Features include online mode Personalized Advisory on Water and Soil (PAWS) – an innovative mobile based extension service to the farmers in remote and hilly region.

- Disseminate the agriculture and soil & water conservation related messages/best practices among farmers of north western Himalaya.

- Provides information related to seeds, fertilizers and weather forecasting including Swachh Bharat Mission and Natural Resource Conservation & Management.

- Farmer can upload images while raising query.

- **App** supports English and Hindi languages.

- 332 users downloaded the **App**, Star rating 3/5.

- **App** available on KVK Dehradun website.
  https://www.tcsmkrishi.com/App/mpaws
GypCal-Sodic Soil Reclamation

- App developed by ICAR-Central Soil Salinity Research Institute, Karnal, Haryana in 2017.

- Features include chemical reclamation of sodic soil for optimizing crop production in Indo-Gangetic plains by calculating the gypsum requirement in bags of 50 Kg.

- Estimates exchangeable sodium percentage of the sodic soil. Calculates total depth of water required for leaching to flush out salts.

- Expected yield of salt tolerant as well as traditional varieties of rice-wheat after chemical reclamation is also predicted.

- App supports English and Hindi languages.

- 570 users downloaded the App, Star rating 4.7/5.

- App available on CSSRI website and Google play store.

  www.cssri.org

Havaamaana-Krishi

- **App** developed by University of Agricultural Sciences, Dharwad, Karnataka in 2016.
- Features include offline information on weather, short range weather forecast and agromet advisory for seven districts under the jurisdiction of UAS Dharwad in north Karnataka to save crops from adverse weather conditions as well as animal husbandry.
- Linked to the official website of AICRP on Agrometeorology, Vijayapura Centre, www.agrometbijapur.org which includes daily weather data, short range weather forecast, and medium range weather forecast based Agromet Advisory.
- **App** supports English and Kannada languages.
- 3518 users downloaded the **App**, Star rating 3.8/5.
- **App** available on Google play store.
• **App** developed by Birsa Agricultural University, Ranchi, Jharkhand in 2017.

• Features include offline content, disseminate weather information on 14 parameters viz. rainfall, maximum temperature, minimum temperature, dew point temperature, soil temperature, soil moisture, surface runoff, underground runoff, downward short-wave flux at ground surface, total cloud cover, maximum relative humidity, minimum relative humidity, wind speed, wind direction on daily (3 days duration) and hourly (for 6 hours) basis.

• **App** supports English, Hindi and Nagpuri languages.

• 500 users downloaded the **App**, Star rating 3.8/5.

• **App** available on MPVK website and Google play store.

LRIS Goa

• **App** developed by ICAR-National Bureau of Soil Survey and Land Utilisation Planning, LRIS GOA in 2018.

• Features include visualizing, disseminating, sharing and data mining of the land resources in a digital manner.

• **App** can locate the user’s location on hierarchical drop down selection basis or else the GPS enabled location tracking.

• **App** supports English language.

• 100 users downloaded the **App**, Star rating 4.8/5.

• **App** available on Institute website and Google play store.

  - https://www.nbsslup.in/
  - http://www.bhoomigeoportal-nbsslup.in/
PCZ Mapper

- Features include easy visualization, dissemination and sharing of database on crop suitability and potential crop zone of the country.
- Farmers can view the related information like soil region, physiographic, sub physiographic, landform and land management units etc.
- App supports English and Hindi languages.
- 50 users downloaded the App, Star rating 5/5.
- App available on Institute website and Google play store.
  https://www.nbsslup.in/
  http://www.bhoomigeoportal-nbsslup.in/
VIII. INTEGRATED
Krishi Gyan

- App developed by G.B. Pant University of Agriculture & Technology Pantnagar, Uttarakhand in 2017.

- Features include information about agricultural crops, horticultural crops and livestock management.

- Provides help and support to the farmers and motivating them towards good and healthy production of crops, procedure and time of sowing.

- Kisan Gyan Application contains help page that asks the farmers to use the helpline number of “Pantnagar Helpline Seva” (05944-234810) in case of queries.

- App supports Hindi language.

- 10000 users downloaded the App, Star rating 4/5.

- App available on Google Play store.

• **App** developed by Krishi Vigyan Kendra, Amadalavalasa, Srikakulam, Andhra Pradesh in 2016.

• Features include modern scientific management practices for Agriculture & Horticulture crops grown in Andhra Pradesh along with photographs.

• Help farmers & extension workers in identification of field level problems like nutrient deficiency, pest & diseases and take decision at right time.

• Other facilities include farm calculator, call centre, videos & address book.

• **App** supports Telugu language.

• 10000 users downloaded the **App**, Star rating 4.3/5.

• **App** available on Google play store.

Kisan Mitra

- App developed by Krishi Vigyan Kendra, Navsari, Gujarat in 2014.
- Features include package of practices for agricultural and horticultural crops of south Gujarat, package of practices for horticultural crops, livestock information and important technologies of Navsari Agricultural University and FAQ.
- App supports Gujarati language.
- 53933 users downloaded the App, Star rating 4.5/5.
Smart NE Kisan

- **App** developed by Krishi Vigyan Kendra, Anjaw, ICAR-RC for NEH Region, Arunachal Pradesh Centre, Basar in 2016.
- Features include solutions relevant to fishery, livestock, agriculture and provide quick information to them even offline.
- **App** supports English language.
- 800 users downloaded the **App**, Star rating 3/5.
Agriculture: FEM@Mobile

- App developed by Krishi Vigyan Kendra, Malappuram, Kerala in 2015.
- Features include online and offline, crop cultivation, plant protection, organic inputs, agro chemicals, expert support and contact directory.
- Information on variety details, fertilizer recommendations, plant protection, insect pests, plant diseases and deficiency disorders.
- Send images of diseased crops to experts, quick replies for queries and any other information.
- App supports English language.
- 10000 users downloaded the App, Star rating 4.2/5.
- App available on Google play store.

Annada

• *App* developed by Orissa University of Agriculture and Technology, Odisha in 2017.

• Features include online management of livestock, poultry etc. along with agro-advisory released by OUAT.

• Information on cultivation practices of different crop in addition to livestock, poultry and other enterprises like mushroom, bee keeping and vermicompost etc.

• Audio advisory has also been included for the illiterate farmer.

• *App* supports English and Oriya languages.

• 100 users downloaded the *App*, Star rating 3/5.

• *App* available on Google play store.

**KVK App**

- **App** developed by Indian Agricultural Statistics Research Institute, New Delhi in 2016.
- **App** provides information about all the KVKs by selecting state and district, all facilities provided by KVK.
- Know package of practices for crops, fisheries, horticulture and livestock.
- Solution of farm related queries from experts.
- Prior information about events to be organized at KVK, details of events like field day, kisan mela, method demonstration etc. already organized by KVK.
- Agrometeorological advisory in English/local language.
- Access agro-commodity prices from eNAM portal.
- **App** supports English language.
- 1000 users downloaded the **App**, Star rating 3.8/5.
- **App** available on website and Google play store.

https://kvk.icar.gov.in/app.aspx  
• App developed by KVK Barpeta (in collaboration with KVK, Kokrajhar) in 2017.

• Features include offline package of practices of different crops, scientific rearing of livestock, plant protection and cropping sequence.

• Information related to seeds, fertilizers, market prices and weather forecasting.

• App supports Assamese language.

• 100 users downloaded the App, Star rating 3.5/5.

• App available on KVK Barpeta website.

http://www.kvkbarpeta.org/
**KVK Mobile App**

- *App* developed by Krishi Vigyan Kendra, Badwani in 2016.
- Features include online information about seeds, fertilizers and complete package and practices of major agricultural and horticultural crops.
- *App* supports English and Hindi languages.
- 1921 users downloaded the *App*, Star rating 3/5.
- *App* available on KVK Badwani website.
  
  http://www.kvkbarwani.org/
KVK online AgriMart

• **App** developed by Darjeeling, West Bengal KVK & farming community in 2017.
• Features include online market platform to the farming community of Darjeeling district free of cost.
• An initiative from Darjeeling KVK to provide global market to farming community.
• **App** supports English and Nepali languages.
• 50 users downloaded the **App**, Star rating 5/5.
• **App** available on Google play store.

CGKV App

- Features include information regarding research, extension, and academic activities of the University.
- Helps the students, academicians, planners, livestock keeper and farmers of state, country and as well as of abroad to gather the information and activities of University.
- App supports English language.
- 100 users downloaded the App, Star rating 4.8/5.
- App available on Google play store.
