

# COTTON Innovate



Weekly Newsletter from Central Institute for Cotton Research, Nagpur

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A weekly newsletter from ICAR-CICR

## “App”ing for science!!!

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With the advent of Smartphone's, the world has become like a touch based playground condensed into human grip. In this era where iOS and androids are rapidly taking over the charge from desktops and laptops, scientific community have also started to amalgamate the applications of mobile devices into their respective research areas. In this regard, several iOS and Android based mobile apps have been developed off late to execute various scientific research related utilities with more ease and rapidity. A few useful freely available apps for mobile devices are mentioned in the following segment.

SN	App	Operating System	Utility
<b>Bio calculators</b>			
1	Statistical	iOS	Can perform a number of population statistics calculations—such as mean, median, variance and standard deviation—on a user-inputted dataset
2	Promega Biomath Calculators	Android 4.0 and up	Equipped with various utilities and functions essential to molecular biology experiments, calculations for nucleic acid and protein conversions, melting temperature, temperature conversion, molarity, dilutions etc.
3	Protocolpedia	Android 3.0 and above	Offline access to a number of complete research/experimental protocols; user defined lab methods can also be organized and stored for easy access, comprehensive protocols in several research areas including Molecular biology, Biochemistry, Cell Biology, Histology, Immunology ext are available. Also includes calculators for Dilution, Molarity, Oligo Resuspension & PCR Mastermix; videos depicting lab methods and techniques can also be accessed.
<b>Science-Note browser</b>			
4	PubMedMobile (Android) or PubMed on Tap (iOS)	Android 1.5 and above	PubMed database with over 21 million citations for biomedical articles and life science, desired paper abstracts can be saved and sent as e-mail to fill your inbox
5	Evernote	iOS, android, windows	Cloud-based note-taking app; stores papers, doodles, audio and more in a searchable format
<b>Bio molecule analyzer</b>			
6	NEB Tools	Android 2.2 and above	Helps to figure out a suitable restriction enzyme for using in an experiment along with information regarding the best buffers required for a double digestion.
7	Fluorescence Spectra Viewer (LifeTechnologi-es)	iOS/Android	Fluorescent proteins and dyes can be viewed and compared for biological applications; up to 5 emission and 5 excitation filters per plot can be added; settings and figures can be sent through email directly to inbox in a printable format
8	BioGene	iOS	Users can browse for gene information retrieving information from Entrez of NCBI database; a desired gene name or gene symbol can be entered to obtain several information including alternate names for the gene and chromosome location, summary of known functions of the gene, along with references having summaries of pertinent scientific papers, links are also available through which required reference papers with abstract can be accessed.
9	RCSB PDB Mobile	iOS and Android	Easy and quick access to RCSB PDB service, users can conveniently search and visualize biomolecules, and add personal annotations via RCSB PDB's MyPDB service.
10	Genetics365	iOS	Data analysis for Genome-Wide Association Studies (GWAS); views single nucleotide polymorphisms (SNPs) in the genome

Agro Apps			
11	Cotton (KAPUS) VNMKV, Parbhani & ICAR-CICR, Nagpur	Android 2.2 and above	Provides useful information on package of practices of Cotton such as pest and disease management, fertilizer management, irrigation, critical growth stages etc.
12	Fertilizer Calculator & (ICAR CCARI)	Android 4.0.3 and above	Enables offline soil test-based fertilizer recommendation calculated based upon the farm area and population
13	n2f calculator (ICAR CCARI)	Android 4.0.3 and above	Enable offline calculation for nutrient-to-fertilizer in user defined units
14	ICAR-NIANP feed chart	Android 2.2 and above	A web based application for balanced feed recommendation for crossbred dairy cow and milch buffalo on the basis of per day milk production potential
15	Oilseeds at a Glance (C-DAC & ICAR-IIOR)	Android 4.0 and above	Access to detailed information on major oilseed crops covering released varieties and hybrids, ICAR seed Project centres dealing with oilseed crops, Mandis/selling markets for each state etc.
16	NCDEX Realtime Rates	Android 4.0 and above	Realtime updates on agri commodity rates for NCDEX India exchange

For more information:

1. <http://www.biocompare.com/Editorial-Articles/168745-Ten-Mobile-Apps-for-Biology-Laboratories/>
2. <http://www.genengnews.com/best-science-apps/>
3. <https://play.google.com/store/apps/>
4. Gregory B. Quinn, et. al., 2015, RCSB PDB Mobile: iOS and Android mobile apps to provide data access and visualization to the RCSB Protein Data Bank, *Bioinformatics*, 31 (1): 126-127.

## ICAR- CICR Participates in 'Agro-Vision 2016'

A stall showcasing the technologies of ICAR-Central Institute for Cotton Research, Nagpur was kept in "7th Agro Vision" the biggest Agriculture Summit of Central India organised at Reshimbhag Ground, Nagpur during 11-14 December, 2015. In this mega event nearly 5 Lakh farmers visited the exhibition site put up by over 300 exhibitors. Around 60,000 farmers attended the day to day workshops in which 52 experts comprising of various sectors particularly from agriculture across the country guided as resource persons. The event was inaugurated by Mr. Radha Mohan Singh, Honourable Minister for Agriculture and Farmers Welfare, Govt. of India. Shri Nitin Gadkari, Honourable Minister for Road and Transport and many other VIPs were present on the occasion. Dr. K.R. Kranthi, Director, ICAR-CICR also shared the dais. Large number of farmers also visited CICR stall and appreciated the research and extension educational activities, also good number of farmers registered themselves for getting regularly 'e- Kapas' advisories from CICR. Dr. R.B. Singndhupe, Programme Coordinator, KVK; Dr. S.M. Wasnik, Principal Scientist (Extension); Dr. V.N. Waghmare, Principal Scientist (Plant Breeding); Dr. D.V. Patil, Senior Scientist (Plant Breeding); Dr. J.H. Meshram; Dr. S. P. Gawande; Dr. Manikandan; Dr. S.S. Patil; Dr. P.B. Deolkar and Smt. Sunita Chauhan actively participated.



## Meetings attended

Dr. Vishlesh Nagrare, Senior Scientist (Ag. Entomology) attended 2nd Steering Committee meeting of “Crop Pest Surveillance and Advisory Project (CROPSAP) 2015-16 for Soybean, cotton, Rice, pigeon pea and chickpea in Maharashtra” on 30.1.2016 at Pune. The meeting was chaired by Shri Vikas Deshmukh, Commissioner of Agriculture, Govt of Maharashtra. In the meeting, various issues on project implementation viz., Action taken on assigned tasks by different stakeholders, physical and financial progress report, kharif pest scenario and present status, status of dissemination of advisory SMS by SDAO to farmers, registration of pest scouts and supervisors by SDAOs for m-CROPSAP, new emerging pests on crops and their inclusion in the project for surveillance etc were discussed at length.

# Cotton Legacy Images

Cotton Improvement programme  
from American cotton in South  
in early years.

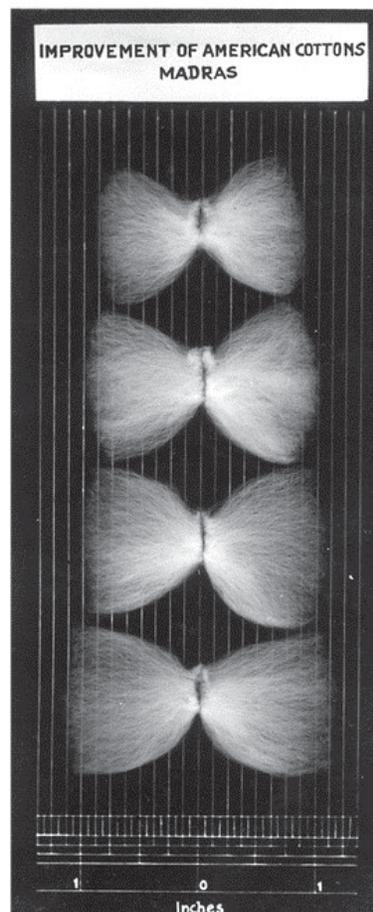
Prepared by M. Sabesh  
Image taken in 1970s at CICR Coimbatore

Local

Combodia 2

Madras  
Cambodia  
Uganda 1 (MCU 1)

Madras  
Cambodia  
Uganda 2 (MCU 2)



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