Crop Nutrition APPs

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Introduction

The number of mobile applications (e.g. Apps) developed and offered to support nutrient management continues to grow. Many of these Apps can provide important information at the farm level. The following list of Apps represents many used by farmers or their agronomic consultants to help with nutrient management including planning, scouting, evaluating stress and executing field applications. This list is not comprehensive but provides common and mostly free Apps.

Nutrient Information and Calculators

Name	Icon	Operating System	Description	Cost	Account Needed?
Fertilizer Removal by Crop Ag PhD	AgPhD	Android / iOS	A guide to discovering the vital nutrient amounts critical to attaining optimum yield for the selected crop. Save result and use for later reference.	Free	No
Ag PhD Deficiencies Ag PhD	Ag PhD CROP AUTRIENT DEFICIENCIES	Android / iOS	A guide to identifying fertility issues in the field. Content includes a complete list of photos and descriptions of the nutrient deficiencies in a variety of crops	Free	No
HumaGro Bio Huma Netics Inc.	HUMA GRO	Android	Calculate nutrition products and application rates based on lab analysis and info sheets. View fact sheets to allow for easy calculations, and save calculations for later and access product technical documents.	Free	No
Fertilizer Blend Calculator Wilde Brothers Farms Ltd.		iOS	A calculator to determine the proper fertilizer blend weights and costs as well as various weights and volumes of net elements in the blend.	\$4.99	Yes
Yara CheckIT Yara International ASA	VARA	iOS	Quickly identify possible nutrient deficiencies. CheckIT has been designed to operate in rural locations with low signal strength.	Free	Yes
Crop Nutrient Removal Calculator International Plant Nutrition Institute		iOS	Estimate crop nutrient removal for a variety of crops.	Free	No

Farm Calculators Dr. Vishwanath Koti	76	Android	Calculate fertilizers (NPK), pesticides, fungicides, herbicides, plant population, seed rate, and seed blending to ensure optimal yields.	Free	No
NPK Credits - Manure & Legume Nutrient Credit Calculator University of Wisconsin Nutrient and Pest Management Program		Android / iOS	Calculate the plant-available nitrogen (N), phosphorus (P ₂ O ₅), potassium (K ₂ O), and sulfur (S) nutrient credits of manure from various livestock species that are applied to cropland fields. One can also calculate the N credit available to crops that follow forage legumes in the rotation.	Free	No
Corn N Rate Calculator University of Wisconsin Nutrient and Pest Management Program		Android / iOS	Assists producers in selecting a nitrogen (N) rate that improves profitability when nitrogen and corn prices fluctuate.	Free	No
N Price Calculator University of Wisconsin Nutrient and Pest Management Program	NS	Android / iOS	Converts the price of individual Nitrogen fertilizer sources from price per ton to price per pound of N.	Free	No
Fertilizer Calculator n2f ICAR CCARI	n2f	Android	Calculate nutrient-to-fertilizer values completely offline.	Free	No
Fertilizer Mixing Calculators FKmicro.com	FarmKaset.ORG	Android	Access fertilizer facts instantly on Android Reduce cost with our mobile app can get knowledge like a fertilizer manufacturer on your hand phone, easy to use, make sense, everyone can use.	Free	No
Blend Calculator Travis Redpath	Blend Calculator	Android	Calculates the fertilizer blend and the total application rate needed to apply the required amount of nitrogen, phosphate, potash, and sulphate. The products can be changed to whatever ratios you want to use.	Free	No
GreenSeeker Data Logger Oklahoma State University		Android	Supports data collecting of NDVI data with a Trimble GreenSeeker handheld crop sensor. * Requires GreenSeeker handheld sensor for data collection.	Free	No
SoluDrip (Just in Time Crop Nutrition) Vital Fertilizers	Crop Nutrition	Android / iOS	Find the exact amount of nutrition for the crop at whichever stage of its life it's at.	Free	No

			*Primarily used for vegetable production		
MRTN/Nitrogen Application Calculator University of Illinois		iOS	The Maximum Return To Nitrogen (MRTN) calculations combine the agronomics of nitrogen rate research and the realities of economic fluctuations to provide a customized nitrogen rate.	Free	No
Fertilizer Cost Calculator Jeffrey Abbott	NPK	Android / iOS	Estimates the value of Nitrogen per unit of Phosphorus source, along with the cost per unit of P205 with or without the Nitrogen value. All calculations based on entered cost per bulk.	Free	No
Potato Potassium Calculator Great Salt Lake Minerals	K	Android	Potato Uptake Calculator can be to estimate how much potassium your potatoes remove from the ground and how much you need to apply to replenish the loss.	Free	No
Alfalfa Potassium Calculator Great Salt Lake Minerals		Android	Use the Alfalfa Uptake Calculator to estimate how much potassium your alfalfa crops remove from the ground and how much you need to apply to replenish the loss.	Free	No
Illinois Manure Calculator (Beta) Move Creative		Android / iOS	Developed for the Illinois-specific manure plan rules, enabling a livestock producer to quickly balance manure applications with field crop nutrient needs. It automates the planning worksheet that Illinois livestock producers learn in the Certified Livestock Manager Training workshops.	Free	No
Spread Charts BOGBALLE A/S		Android / iOS	The BOGBALLE Spread Charts app will give you quick access to our online database with thousands of available spread charts for your BOGBALLE fertilizer spreader.	Free	No
Organic Calc minskaysoft		iOS	Check and adjust the application rate, while working with a manure spreader or slurry tank. With the built-in GPS receiver of the iPhone, one can measure the distance and the resulting surface, just by pressing a button while driving. Measurement disruptions are also possible.	\$8.99	No
Nitrogen Index USDA-ARS	25	Android	The Nitrogen Index App can be used to quickly make assessments of the effects of management decisions on nitrogen use efficiencies.	Free	No

Echelon Agrian Inc.	<u>e</u>	iOS	Mobile companion to the web application that provides crop advisors, consultants and growers with a suite of precision agronomy and compliance tools.	Free	Yes
TigerSul Tiger-Sul Products LLC	TIGER-SUL	Android / iOS	The Tiger-Sul Nutrient Calculator is an agronomic planning tool for farmers to plan fertilizer applications and meet soil nutrient needs. Users select a crop and the desired yield for that crop; and are given the amount of crop nutrients that will be needed. The nutrient calculator covers all key crops including corn, canola and soybeans.	Free	No
AgriSpread Armour Interactive	Agri	Android / iOS	The rate table feature allows the user to search application rate charts for the appropriate machine settings based on spread width, required rate and fertilizer type. A second feature, the fertilizer application rate calculator is also included, enabling the farmer to carry out a physical testing procedure to check the actual rate.	Free	No
CAT BASF plc	BASF	iOS	The BASF CAT is a tool designed to help Farmers and Crop Advisors protect the yield of winter cereals by assessing crop nitrogen content and crop lodging risk.	Free	No
ATP R3 App Sherpa Digital	RB C	Android / iOS	This app incorporates the latest in plant nutrition research to identify important nutrients across all stages of crop growth, understand the role nutrients play, identify products to increase crop health and yield, understand required rates and tank mix compatibilities, view photos of deficiency symptoms, and view nutrient uptake and removal levels.	Free	No
FertiMatch Haifa Group	Haifa	Android / iOS	Determine the right amount of fertilizers needed to get a desired nutritional composition. The grower inserts details about their Fertigation control head, defines a reference element and concentration and selects fertilizers. The output simply tells what quantity of fertilizer is needed, and what will be the concentration of nutrients in the irrigation water.	Free	No

Teagasc <i>Teagasc</i>	America Par Drawer Ameri	Android / iOS	Provides access to selected Teagasc information and in-App calculators. It is an interactive tool that farmers can use to track fertilizer usage against their fertilizer plan. Track yearly allowances, purchases, and opening stock to keep a record of nutrient purchases.	Free	No
Manure Valuator University of Arkansas	S Division of Agriculture	Android / iOS	Helps producers calculate the dollar and nutritive value of manure and allow them to share results via email. Users have access to a bulk cost calculator to determine cost per pound of nitrogen, phosphorus and potassium from inorganic fertilizers and a database consisting of nutritive value of 18 different sources of manure which allows user input for custom values for wet and dry manures.	Free	No
Cow Poop Analyzer Texas A&M AgriLife Extension Service	CowPoop Analyzer	Android / iOS	Cow Poop photographs are compared with stock photos to determine the approximate crude protein and digestibility of forage/food.	Free	No
Ammonia Loss Oklahoma State University	A	iOS	Accurate estimates of ammonia volatilization losses from surface applications of urea in agriculture. Estimates are in percent of the total N rate applied.	Free	No
GreenSeeker N Rate Calc Oklahoma State University	NITROGEN 7	iOS	This application hosts sensor based nitrogen recommendation algorithms which have been developed by researchers in each respective region. The calculations are based upon NDVI values retrieved from the GreenSeeker Sensor. The GreenSeeker is an active light sensor. It would be expected the NDVI from other actives sensors would be similar, but potentially not exactly the same.	Free	No
Return on Nitrogen Investment Oklahoma State University	R.O.I.	iOS	This app is designed as a tool in determining economic nitrogen (N) rates. This calculator determines the return on investment (ROI) of N fertilizer for multiple crops under two different scenarios. The first scenario is that yield fertilized for is not realized. The other scenario is if the producer under fertilizes for the environment.	Free	No

North Dakota Crop Nitrogen Calculator North Dakota State University	26	Android / iOS	This application provides three NDSU crop nitrogen recommendation calculators for use in North Dakota corn, spring wheat, and corn, respectively. Nitrogen recommendation calculations are based on an economic production function that takes into account the yield response of the crop to added N, less the cost of the N. The recommendation is based not only on the yield increase from additional N, but the price of the commodity and the cost of N.	Free	No
Canola Starter Oklahoma State University		Android / iOS	This app calculates the maximum amount of fertilizer that should be applied with winter canola seed at planting based upon row spacing and fertilizer source.	Free	No
NPK FieldGuide Oklahoma State University	NF K	iOS	Oklahoma Nutrient Management Field Guide App is a mobile version of a printed handbook. Within this app users have access to nutrient removal values, a nutrient deficiency identification tool, fertilizer calculations for all of the major crops grown with Oklahoma and information on fertilizer sources and using the N- Rich Strip and GreenSeeker Sensor.	Free	No
Wheat SBNRC Oklahoma State University		Android / iOS	Sensor based N rate calculator for winter wheat. Active normalized difference vegetative index (NDVI) sensors are highly accurate in predicting plant biomass. By utilizing biomass produced per day, yield levels of cereal crops can be predicted. By using the predicted yield level, accurate N rates can then be determined from the mid-season NDVI readings.	Free	No

Equipment Setup

Name	Icon	Operating System	Description	Cost	Account Needed?
ApplyPlus John Deere	JOHN DEERE	Android / iOS	Provides the ability to optimize machine set-up and maintenance procedures. Currently for 4 Series JD sprayers.	Free	Yes

AgLogic Mobile John Deere	JOHN DEERE	Android / iOS	A complete logistics solution for custom application that syncs with the AgLogic web application. *Requires license to activate account	Free	Yes
Rauch Fertilizer Chart RAUCH Landmaschinenfabri k GmbH	RAUCH	Android / iOS	Provides spreading charts for current and older RAUCH fertilizer spreaders.	Free	Yes
New Leader Mobile New Leader	NL	Android / iOS	Assists users and dealers in conducting a conveyor or catch calibration and determines calibrated CFR or Constant Number. Determines initial settings based off product characteristics.	Free	Yes

Nozzle and Orifice Selection

Name	Icon	Operating System	Description	Cost	Account Needed?
TeeJet SpraySelect TeeJet Technologies	TeeJet	Android	Enter speed, spacing and target rate, select the drop size category; a list of tips that will work is generated.	Free	Yes
Spray It Pentair Flow Technologies LLC		Android / iOS	Select the chemical company and name of the chemical applying, a nozzle to use based on the application information on the label will be recommended. Growers can also input application rate, speed, and nozzle spacing and a nozzle size for that specific application will be recommended.	Free	No
Kuhn-Nozzle Configurator KUHN		Android	Select the correct sprayer nozzle for specific application requirements, such as working speed, flow rate, etc	Free	No
Spray Tips Guide Ag PhD	Ag PhD START IP BUILE	Android / iOS	A guide to select the proper nozzle for the equipment being used. Select nozzle by chemical company or name of the chemical being applied and receive suggestions based on the label application information. Change the application rate, speed, and nozzle spacing for more precise suggestions	Free	No

Record Keeping

Name	con Operating System	Description	Cost	Account Needed?
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OnMRK KCFB & KSWCD	N.P.K	Android / iOS	Enter the fertilizer type, rate, amount applied, total acres, soil conditions, application method, weather conditions when applied, using a tablet or smartphone. *Desktop version is needed *Must have a Certified Applicator ID to register	Free	Yes
Critical Records of Production (C.R.O.P.) Utah State University		Android / iOS	Track important crop production records, such as crop history, yields, fertilizer applications, pesticide applications, and irrigation events.	Free	No
Pesticide and Field Records Iowa State University		Android / iOS	Record and maintain pesticide applications, link to specific field locations using satellite mapping, and keep other important crop production information with the Pesticide and Field Records app.	Free	No
AgDNA AgDNA		Android / iOS	Provides farm planning, record keeping, boundary mapping, worked area mapping, live equipment tracking, scouting observations, communication tools, data sharing and more. All data is synchronized with a free online AgDNA account allowing activity records and setup details to be viewed from a web browser or any other AgDNA enabled device.	Free	Yes
Farm At Hand Farm At Hand Inc.	FARM AT HAND	Android / iOS	Track and schedule all field activities with precision. Manage your fleet on the go and follow all equipment details, maintenance logs and part numbers.	Free	

Soil Sampling

Name	Icon	Operating System	Description	Cost	Account Needed?
AgWorld Sampling AgWorld		iOS	Agworld soil collectors can easily view, complete and submit sampling jobs assigned to them. *Note: This app requires a precision enabled Agworld account.	Free	Yes
Ag PhD Soils Ag PhD		Android / iOS	Fast and accurate soil test tool. Lab results come in 5-7 days, aerial imagery of your field, test as much as you want and pay as you test. Generate variable rate prescriptions, download recommendations and controller files.	Free	No

			*Pay to have soil tests sent to Midwest Laboratories		
360 Soilscan 360 Yield Center	360	iOS	A portable soil lab that provides soil nitrate and pH analysis to enable more accurate and timely nutrient management.	Free	Yes
Sirrus SST Software Inc.		iOS	Manage the soil on your fields efficiently and with precision. Sirrus for iPad has what is needed for intensive soil sampling services so you can make informed fertility decisions. Upgrade to Premium to edit recommendations in the field and make treatment adjustments.	Free	Yes
Soil Test Pro TapLogic, LLC	SOILTESTPRO	Android / iOS	Use Soil Test Pro to order soil sampling supplies, pull precision soil samples, choose a lab from our recommended list, and ship your samples.	Free	Yes
Sampling Pro 2.0 CSBP Limited	CSBP	Android / iOS	Submit your CSBP Soil and Plant sample at the tap of a button. Send your soil & plant sample information straight to the CSBP lab, record your GPS coordinate and view location on Google Maps. Built in barcode scanner to match each sample bag with the apps Paddock Information Form.	Free	Yes

Field Data Management

Name	Icon	Operating System	Description	Cost	Account Needed?
Ohio State PLOTS OCV, LLC	OHIO STATE PLOTS	Android / iOS	Create replicated on-farm trials to compare hybrids, fertilizer rates, stand counts, and more. Provides statistical comparisons and summary reports.	Free	No
FieldView The Climate Corporation	CLIMATE	Android / iOS	Connected suite of digital ag tools. Tracks rainfall, field health, nitrogen status, yield analysis, and recent activities. Includes delivery of weather information. Paid subscription required to access some functionality.	Free	No
FieldView Cab The Climate Corporation - US	S C C C C C C C C C C C C C C C C C C C	Android / iOS	Digital tool for visualizing planter and harvest field data while supporting field scouting, imagery and soil data layers.	Free	No

News and Information

Name	Icon	Operating System	Description	Cost	Account Needed?
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AgriGold We Know Corn AgReliant Genetics, LLC		iOS	View crop and soil research studies, periodicals and videos, it can also send results of yields instantly through email and much more.	Free	No
AgWeb News & Markets Farm Journal, Inc.	AG WEB	Android / iOS	Provides the latest agribusiness news and advice. Read ag management news, farm business blogs and articles from one trusted source.	Free	No
Farm Futures iNet Solutions Group	FARM FUTURES	Android / iOS	The power of Farm Futures magazine in an app! This enhanced mobile presentation of the leading management-oriented farm magazine features enhanced user-customized markets, market commentary, news and audio updated every business day.	Free	No
agIndex Monsanto Company	ag	Android / iOS	Get all the markets, weather, news and exclusive agronomic advice, in one quick-to-read dashboard. Receive push notifications customized to your location and crop portfolio to keep up with commodity pricing and insect and weather alerts.	Free	No
Real Agriculture RealAgriculture.com	4	Android / iOS	RealAgriculture is focused on the issues that are impacting agriculture. The app allows you to pick interests that are important to your operation and only see articles related to your interests. You can also save articles to read later or for offline reading.	Free	No
Ag Mobile Barchart		Android	The AgMobile app is a collaboration of AgriCharts (a division of Barchart) and Successful Farming. Access commodity markets, news and weather on-the-go from the convenience of your mobile device.	Free	No
Farm Journal On- Air Farm Journal, Inc	ON AIR	Android / iOS	Source for AgriTalk, AgDay, Market Rally, U.S. Farm Report, Machinery Pete TV and so much more. Watch and listen to full episodes or find your favorite highlights and the latest news.	Free	No
Brownfield Brownfield Ag News	BROWNFIELD	Android / iOS	Provides instant access to customized weather and futures market prices, as well as the latest agriculture news, and unique audio updates from the Brownfield Ag.	Free	No

Argus Publications Argus Media Group	argus	Android / iOS	Provides access to critical market reporting and pricing. *Must have subscription or trial with Argus Direct account login	Free	Yes
Gavilon Grain iNet Solutions Group, Inc.	5	Android / iOS	Up-to-date weather, cash bids, news and market information provided by your local Gavilon facility.	Free	No
Growers Edge iNet Solutions Group, Inc.		Android / iOS	Access weather pinpointed to an individual field while locating best cash price bids within a 100-miles of a location. Users can also receive local market commentary and ag news, compare risk management options and fully utilize the Profit Manager tool to establish profit goals, edit input costs, record marketing transactions and track profit by crop and year.	Free	Yes
Farm Progress iNet Solutions Group, Inc.	≥ ₩	Android / iOS	Keep up on local ag news, grain and livestock markets, enhanced weather and blogs. The app automatically directs one to the right local Farm Progress website, or you can choose your favorite.	Free	No
AgWired ZimmComm New Media		Android / iOS	AgWired is an online community for everyone involved in agricultural marketing and communications, including farmers, ranchers, agribusiness, farm groups, ag media, freelancers and advertising and public relations agencies.	Free	No
CVA Coop Cvacoop IT	ev _A	Android / iOS	The CVA Coop app brings you real-time cash bid and futures prices, in addition to updated weather and the latest agricultural news.	Free	No
FarmWeek iNet Solutions Group, Inc.	FARM	Android / iOS	Provides farmers with the latest information about agriculture from the staff at FarmWeek, RFD Radio Network and Illinois Farm Bureau's News and Communications division.	Free	No

Weather

Name	Icon	Operating System	Description	Cost	Account Needed?
The Weather Channel The Weather Channel	The Weather Channel	Android / iOS	View local & national forecasts, current weather conditions, and weather maps.	Free	No

AccuWeather: Weather Forecase & Real Time Reports Accuweather		Android / iOS	View minute-by-minute precipitation forecast, hyper-localized to your farm and field.	Free	No
Weather Underground: Forecasts Weather Underground	× ·	Android / iOS	View hyper-local weather forecasts in addition to interactive radar, satellite maps and severe weather alerts.	Free	No
Weather by WeatherBug WeatherBug	**	Android / iOS	Provides fast weather alerts while viewing real-time weather conditions and hourly forecasts.	Free	No

Area Apps

Name	lcon	Operating System	Description	Cost	Account Needed?
GPS Fields Area Measure Studio Noframe		Android / iOS	Provides area, distance, and perimeter measurement and management. Easily share maps and acreage information.	Free	No
Planimeter – Measure Land Area & Distance on a Map Core Signals		Android / iOS	Measure fields, circular regions, paths and perimeters. Add markers to pinpoint locations.	\$7.99	Yes

Acknowledgements

Thank you to the reviewers (Dr. Bruce Erickson-Purdue University, Dr. Brian Arnall-Oklahoma State University, Jason Hartschuh, Mike Estadt, Andrew Klopfenstein – The Ohio State University, David Scheiderer and J.D. Bethel – Integrated Ag Services) that have provided constructive feedback on this publication.

Visit the Ohio State University's Precision Agriculture Web Site http://precisionag.osu.edu and Agronomic Crops Network https://agcrops.osu.edu/ for additional information on nutrient management and stewardship.

Tags: Precision Agriculture, Agronomy, Corn, Soybeans, Wheat, Nutrient Management