

# Pocket Help

Smartphones and apps can aid your regenerative ranching journey.

Free smartphone and web apps are a powerful ally in regenerative ranching, from identifying plants to mapping pastures and recording key data.

“A lot of these are tools ranchers can use to track their progress,” explains Josh Gaskamp, Noble Research Institute regenerative ranching manager. “You get a snapshot in time that tells you what plants you’re seeing in your pasture, when you moved those cattle to what paddock and what the condition of your soil was before you started a new management practice.”

Whatever that data point is, if it is stored in your smartphone or a digital app, it is easily accessible and searchable to track progress over time.

Gaskamp and several Noble regenerative ranching advisors share how they use these (mostly) free apps on the ranch.

## Start with the apps you already have

The most useful apps on your smartphone may be the ones you already have. No matter what your ranch and soil health goals are — increased diversity, ground cover, grazing capacity, etc. — your camera app may be the most powerful tool for tracking them.

“It’s a cliché, but a picture really is worth a thousand words,” Gaskamp says. If you organize your digital photos in specific folders or albums — for example: ‘Range monitoring, west school section’ — you can easily compare and contrast between years at each site.

Your paper calving notebook might be your front-pocket guide to tracking your herd, but what if you took a

photo of each page as it fills? Put it in an appropriately labeled digital folder, too, and you’ll have a copy that can’t get lost, smeared with muck or become soggy beyond recognition. Plus, the image recognition capability built into your phone means you can search for ear tag 1175 in your photo library, and you will likely find a photo containing the tag number.

It may help to place images into your phone’s default note-taking app, too, and then record information and data points alongside the photos.

Your notes app can also serve as a searchable running log of ranch activities. For instance, if you jot down a sentence or a few bullet points about activities or events on the ranch each day, you might later search for “vaccine” to find last year’s vaccine order. Or search “Smith pasture” to remember when you moved pairs.

## Set reminders to build new habits

Putting a new app to good use or introducing a new habit to your existing app use often fails because it’s not routine. Gaskamp suggests using the pre-installed calendar app to aid habit formation.

For example, he’s working to transfer his personal ranch information into a digital bookkeeping system. Rather than tossing receipts in the visor of his pickup after each purchase, his goal is to get into the habit of snapping a photo to upload to his bookkeeping app

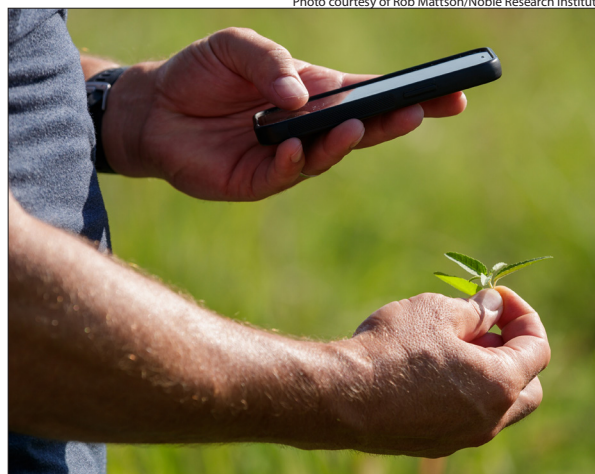
that syncs the proof of purchase with his banking statement. He may not remember to do it every time, but he can set a weekly reminder in his calendar. The reminder could be as specific as asking his phone to remind him every Friday when he gets home to clear the visor and process receipts before he walks in the door.

Set annual or quarterly repeating calendar reminders for rangeland monitoring; note appointments with your ranch team to review annual goals; or prompt a quick, monthly financial data review to make sure your new enterprise is on budget.

## Apps focused on the soil health principles

The South Dakota Soil Health Coalition’s (SDSHC) Soil Health Assessment app offers a quick overview of soil health principles, plus a self-assessment tool to track and evaluate qualities like ground cover, erosion, soil structure, disturbance, diversity and more.

Photo courtesy of Rob Mattson/Noble Research Institute



Smartphone apps can help with everything from plant identification to estimating ground cover and forage availability.

The Soil Web app, developed by the California Soil Resource Lab at the University of California, Davis, in collaboration with the USDA, indicates soil taxonomy, soil properties, land classification, hydraulic and erosion ratings, forest productivity and soil suitability ratings using either GPS location data or searchable locations. This information may offer indicators of progress on your ranch or offer additional information when you're considering buying or leasing new land.

Land PKS, another free app, offers similar information plus historic vegetation trends, historical weather data and places to add your own data about soil texture, slope, infiltration and other soil health monitoring data, as well as land management and farm recordkeeping.

### Identify and measure plant and wildlife diversity

The SEEK app by iNaturalist is a favorite of Will Moseley, Noble regenerative ranching advisor. He uses this free app to identify plants, trees, insects, birds and more as he helps ranchers on their regenerative journey and in his own backyard.

"Monitoring and tracking what plant or animal species are on your land can indicate information about the success of your management on the land," Moseley says.

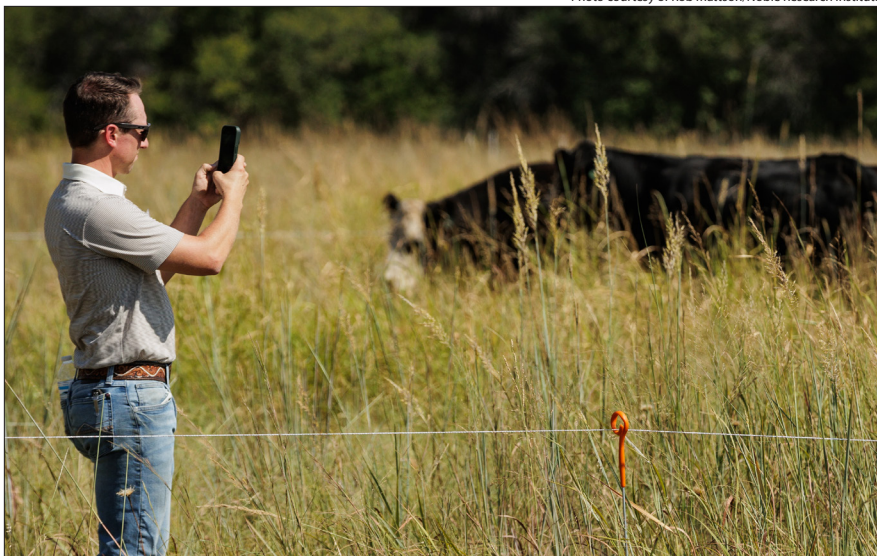
Apps like this are often less accurate in early growth stages of grasses, but if you find a plant with a flower or seedhead, Moseley has found the app to be fairly accurate. You may need to employ other resources for more detailed plant identification.

The presence of grassland birds also serves as an indicator of a healthy ecosystem. The free Merlin app helps identify birds based on audio recordings with calls and photos.

### Map and measure for grazing plans

Gaskamp and other Noble leaders have found Google Earth to be a powerful, free place to map and measure pastures and paddock grazing cells.

On his home ranch, Gaskamp uses Google Earth to map, measure and track grazing events. It's a simple, intuitive, free way to get started



Camera, notes and calendar apps already on your phone can help log ranch activities and keep livestock records.

without committing to one of the more advanced, grazing-specific app tools with subscription services.

Steven Smith, Noble regenerative ranching advisor, also uses the free app Mapulator to measure, map and create layers of grazing unit history.

### Boost regenerative efforts on crop ground

If you've delved into cover-cropping to regenerate cropland or incorporate livestock on cash-crop land, Oklahoma State University (OSU) offers free apps that might help.

Noble's Jim Johnson uses the OSU-developed Canopeo app to estimate bare ground cover. Originally developed to help small grain producers calculate bare ground versus cover in fields, he has also found it a useful tool to quickly assess and monitor ground cover in some pasture situations, too.

To help plan cover-crop grazing, the SDSHC offers the online Cover Crop Grazing Calculator.

### Apps for building a profitable business

If you're going to spend money to purchase an app or software, Gaskamp suggests one to sharpen your ranch business.

"We're aiming for all these soil health principles, and that is very important," Gaskamp says. "But at the end of the day, the most important thing for most ranchers is profitability."

Quicken and QuickBooks are two of the most common accounting and financial software available. Both come with mobile-friendly apps that put the process of tracking expenses, business mileage and financial analysis statements in the palm of your hand.

There are plenty of other financial apps out there, so the most important thing is to find one you'll actually use and stick with.

"These are tools to help us study and see our business expenses in real time, so you don't have to wait until the end of the year to realize an enterprise wasn't making any money or that an input expense isn't sustainable," Gaskamp says. "That's the kind of information we need to make sure we're truly making a profit along the way." **HW**

**Editor's Note:** This is part of a continuing series of articles about regenerative ranching from Noble Research Institute, long trusted by beef cattle producers for supporting the industry with research, education and consultation. Follow the series in future issues of *Hereford World* and *Baldy Advantage*, as well as in special *1881* podcasts, at [Hereford.org](http://Hereford.org). Additional regenerative resources and past articles in the series are also at [Noble.org](http://Noble.org).

Laura Nelson is a freelance agricultural journalist based in western Nebraska.