



**Soil &
Climate
Alliance**

Virtual Roundtable Series

*Regenerative Agriculture
Opportunities for Banks*

**Connecting
Regenerative Ag
Data & The Banking
Industry**

Connecting Regenerative Ag Data & The Banking Industry



Dr. Jerry Hatfield
Retired USDA ARS



Russell Hedrick
Farmer / Soil Regen



Brandon Welch
Mad Capital



Key Takeaways

- New technology and data are at our fingertips that can help give confidence to banks and lenders about on-farm changes that mitigate risk and variability over a large scale.
- It's important for us to have more usable data on yield volatility and SOM, weather risk and climate change patterns, climate stress on productivity, and how this drives commodity markets. Models are still underestimating yield, soil health, and carbon on the most regenerative farms.
- Farmers make a change for one of two reasons: economic reasons or social pressure; they need the confidence to make the change to realize it's different work, but they're saving money.
- Place-based data and anecdotal evidence exists, but we need more and on a larger scale to bring in larger capital markets.

[Session Recording](#)

HIGHLIGHTS & INSIGHTS

Dr. Jerry Hatfield:


- Framework to work with producers is called G by E by M (genetics by environment by management) -- meaning management is what you oversee to overcome environmental factors to optimize for genetics.
- As we improve soil, we improve yield distributions and plant productivity within that, taking out low yielding parts of fields and increasing crop resilience (i.e., 30 farms in Iowa, average \$120-\$150/acre in increased net profitability).
- We can use remote sensing to characterize what's going on in the field and track patterns year to year -- working with producers on sampling (not blanket sampling but focus sampling to get what we need).
- Science has constrained itself by thinking we can only change soil in decadal time frames; it won't always be measurable in all the traditional ways we think about it but that doesn't mean it's not changing in year one.

Russell Hedrick:

- As a first-generation farmer, began regenerative practices as a defense mechanism to save on input costs but found many other benefits along with the least amount of work with the best impact on grain quality and on-farm ROI.
- We have the data we need right now, but traditional ag lending has not been sufficient because the less money I spend the less interest they make in servicing that loan.
- When looking at trend lines, conventional farmers will either have a super good or super bad year; the regenerative farmer may not have as many peaks in the trend lines -- they are minimizing the risk with more consistent yields year-to-year
- In our current system, margins for farmers are tight; last year average farm profit margin was \$20/acre in US. So, it feels difficult to try new things.
- Farmers are not their own agronomists now (massively costing them); they become their own agronomists again with regen

Brandon Welch:

- Mad Capital works to give farmers the time they need to make the transition to organic and regenerative.
- Working with banking partners to act as conduit between ESG-focused banks and farmers looking for capital; large institutions aren't thinking about innovative underwriting or the steps it takes to transition.
- From a data standpoint, most ag lenders are focused on debt coming in with lowest risk and lowest cost capital and in an over collateralized position; on the other side, investors and venture capital are taking more risks.
- The finances tell the story. If farmers have cash flow increasing, growing assets in proportion to liabilities, this can paint a clear picture for any lender.
- As a lender, Mad Capital is not in the business of telling farmers how to grow, they trust that the farmers are making the best decisions for their land and become a partner in that.



"We as a group – farmers, bankers, scientists, companies like SCI and Soil Regen – we have to make a clear path for farmers to be able to see the end of the tunnel before they're going to step into it."

-Russell Hedrick



Connecting Regenerative Ag Data & The Banking Industry

Areas of Opportunity

Turn existing scientific data into educational information that is usable across sectors

Create partnerships between traditional banks and innovative funders to help allocate capital

Figure out how to value the whole system, as well as separate practices, to capture the full yield, climate, resilience and farm profitability of regenerative ag

Enhance collaboration through farmer networks by region to build confidence among farmers making the transition or interested in starting

Increase educational opportunities specifically for banking professionals around regenerative ag

Focus on the principles and practices of regenerative ag instead of individual practice outcomes – wholes not parts

Help farmers become less reliant on debt through revenue-based financing