Whole Cover Crop Conference Questionnaire - Question 6

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Nutrient and Fertility Management

understanding N inputs from cover plus manure additions for optimum yield
growers could prefer to stick to old seeding rates if they are getting the biomass they like but overseeding and reducing profit margins
Varieties in a mix can outcompete others or the decreased amount of one variety will decrease overall benefit of cover
Planting summer cover crops for nematode control-can winter cover crops have an effect on nematodes.
increased management costs
Unsure about benefits
agency buy in on colaboration of needed soil testing methods development
data showing the measured benefit in terms of soil fertility improvement will enable growers to better understand the value of increased use of cover crops in farming systems
Understanding and quantifying nutrient potentials
Tie up of nutrients
Cover Crop Mixes

putting faith in nutrients being released by the cover crops for the next crop where they would normally fertilize
inconsistency of weather impacts
Direct economical benefit in knowing the different families of microorganism in my soil.
rats
Proper cover crop management adds management intensity and can be difficult; this added complexity may be unattractive.
Long term studies- perennial crops

There are no silver bullet solutions with covercrops and tiral and error management is complicated and risky
N management
new varieties farmers' aren't familiar with
No simple answers - "it depends"
lack of info on how to calculate nutrient budgets
percieved costs
conference
increased costs without economic benefit
too much credit is being promoted for corn
optimal equipment
barrier is getting producer to try new practices
insuffiecient biomass
few numbers to show $$ value
nutrient management and fertility- the need for more accessibikity of information
expense of soil methods
nutrient management hard to see large scale effects of decisions
farmers don't know to add more N for high residue rye
nutrient sensitive water sheds/hog spray fields
knowledge
growers may think having to add fertilizer for the cover crop

Soil Biology

Crop farmers with no livestock experience
dollars
cost effectivenes of nutrient scavenging/nitrogen producing cover crops
Cost (additional costs) to production
How does it benefit me economically
Producers can not see these biological communities therefore they are easily forgotten about
A way to quantify progress
Concerns about soil compaction caused by grazing needs to be alleviated - the research has already been done so it becomes an extension/education issue
believing that soil health has value
not making the connection between beneficial insect attraction to cover crops and pest control
Effective extension Outreach
expense and potential for weeds
lack of understanding of the potential positive imact from good soil biology
none for growers
cost and timeliness of biological testing
Test, calculation and certified nutrient plan writer
The FDA!
A lack of clear understanding of soil and soil biological functions and how healthy soil translates to farm sustainability and economic profitability.
Problems with chemical interactions with soil,organisms.
Long term studies- perennial crops
Lack of knowledge about impacts of CC's on diseases
uga ext. comm. teams not doing long term studies necarry for this system benefits
How much residual cover crop biomass is optimum for enhancing subsequent grain crop production in different systems?
no local tests for farmers to see
cost of the mixtures to improve soil biology
keeping the information simple and percise
Lack of familiarity with different forages
need to link new practices to profitability
proving to them that soil biology is beneficial
unavailability of economical testing and what to use
not understanding the benefits
uss knowledge on soil biology importance and understanding
expensive
soil biology- doubt that healthy soils improve productivity and reduce costs
a lack of scientific data and recommendation
lack of understanding of what particular microbiolical communities do and when

Economics

integrating covers and perennial pastures
NRCS cost share help or incentives
Cost barrier on equipment

timely planting
Farmer resistance to change
Mind set that it costs to much
Not enough data on cost/benefit of cover crops
Retun on planting cover crops doesn't meet requirments
for producers just starting out we need to be able to tell what cover varieties to use and not a huge list of options(we need to narrow the options down for them) and explain what they can expect the first year not what to expect in 5 years
yield lags for start up and cost of seed
Perceived high input of establishing a cover crop, especially from low management producers.
Show economics.
time and expense
confusion about costs and benefits
Equipt cost

There are no silver bullet solutions with covercrops and tiral and error management is complicated and risky
Cost
Documenting the long term economic benefits
few numbers to show $$ value
$
No simple answers - "it depends"
folks are conerned about costs and if they will see a return
cover crops not being profitable
short term leases
cost
showing that CC's are an investment not a cost
weed control in growing cover crops for seed
equipment changeover
economics- economic evaluation tool to compare and illustrate in a singular farmer language
econmics- cover crops require planning and time
no cohesive effort from cover crop planting
economics- seed cost
short term benefits vs long term benefits
limited research support in this area
not understanding the true value of the cover crop
economics- system too complex too many assumptions
economics- belief that costs overwhelm the benefits
insufficient reorganization of breadth of benefits- incuding among researchers
initiating cover crops not worth the investments

Weed Control

understanding seeding rates for different soil types
Technology and cost
Cover crops tend not to give consistent weed control and are thought to be of minimal value.
cover crops can interfere with the soil contact of preemergence herbicide applications
Organic weed control pumpkins

Improper implementation on-farm
cover crops for weed control is one thing...but in added value farm products..effects on compostional quality should be investigated
Effective termination
Offering termination solutions for some cover crops that can become future pests or inhibit subsequent crop growth
Planting into heavy residue
they just don't know the bottom line sometimes it seems to them to big of a risk that on small margins they are not will to take the chance
Knowledge and training
the extra labor and expense of an acre of covercrop versus and acre of herbicide application.
Knowledge
time to plant
Termination
tradition (have always done things a certain way)
The cult of glyphosate!
Weed suppression with appropriate non invasive species
Equipment cost
dealing with the residue (planting)
So many different weed species and so many cover crop cocktail options
Residues are challenging to work with and may increase pest pressure and slow crop establishment
Getting farmers to think outside the box
cc becomes a weed
once you've rolled cover crops weed control
weed pressure in areas that cannot produce mass amounts
lack of sufficient research
expense of equipment for small producers
cover crops vary in their performance
cover crops for weed control- a barrier I forsee in this area are residual effects that may linger
differently in moving away from faster production
economics
weeds- high biomass- planting issues
exposure to other growers doing it successfully

Establishment, Termination, Residue

Cost and availability of planting and seed.
cost and availability of equipment is a challenge
Fear of growing mixes and knowledge of growth habit
I feel that planting into a green cover crop or green rolled crop in South Georgia could pose serious damage from insects and disease. We striptil melons into rye and the result is seed corn maggot. Strip till peanuts get burrow bug damage, striptill corn was damaged this year by sugarcane beetle.....Lets find the problems instead of acting like there are not any.
can i manage high residue
Lack of interest on the part of large scale farmers
Germination problem behinf rye
Availability of novel termination equipment

cant get it in the field when needs to be planted
cost of cover crop
introduction of cover crops into existing cropping systems can be costly. One of the costs is the required equipment. Information is needed to facilitate the decision making process for making this transition.
Unsure how to manage high biomass
knowledge and training
early planting/establishment
a bad experience with the wrong cover.
varys across years/environments.
establsihment methods with lack of equiptment
planting into high residue
Costs of establishment of Cover Crops including new equipment costs.
the "we've always done it that way" mentality when it comes to burndow/crop field preperation
concerns that there will not be enough growing time or moisture for establishment
resistence to change: new methods are more complicated, cost more, take more time, require more "iron"

getting farmers to see the benefits of planting in a timely matter when that is one of the busiest times of yr
fear of reducing profitability by going to different systems
Concerns about initial startup costs of cover crop use and the inability to quantify long-term farm and crop system economic and environmental benefits of continued cover crop use.
termination
Cost

Equipment: establishment & residue management. For example, a drill is your best bet for establishment, and a flail mower and/or roller are good for residue mgmt. Might not be economical for all farmers to purchase.
What will it take to get the majority of adopters to use cover crops?
timely planting of winter covers
Timing
equipment
few numbers to show $$ value
Control of weeds when mechanical tillage is no longer an option
limited diversity in available legume
information that is region specific needs to be identified
systematic understanding of cover crop mixture
difficulty in establishingcc in certain systems
semi-arid regions with limited rainfall and irrigation
establishment, termination
specialize equipment for seeding
lack of cooperation among researtch programs to collaborate share data sets to analyze projects from a systems perspective
cover crops establishment, termination, and residue management
producersare fearful of seed cost so need to fine their seeding recommendations
lack of information on mixes, rates and planting dates
a lack of well tested applied strategies for different regional production areas

Beneficials and Pest Control

Minimum amounts and location of land
knowledge and training
not making the connection between beneficial insect attraction to cover crops and pest control

A lack of clear understanding about the role beneficial insects play in farm sustainability and farm profitability.
Would attracting pollinators prevent pest control
Correct selection for desired beneficial attraction
Army worm issues
concern over effectiveness
traditonal pest management may not be same as with covers
late planting window with drill
introducing weeds into adjacent fields
lack of knowledge
education of field demonsrations

Varieties and Mixtures

Seed availability
establishment
Dealing with residue
not understanding how much and when cover crops release N
A farmer that spoke in a session claimed that he didn't have to put out potassium or phosphorus any more in his corn due to his cover crop. This is a load of hockey. He is mining his soils of nutrients not provided by a covercrop. This is not researched based. Lets get back to good researched based data please....
does it improve the bottom line
Lack of understanding of benefits of new varieties
Planting date and broadcast will not work
sourcing enough seed
Equipment and access to equipment
can't find the seed needed to plant
lenght of time to realize benefits
how do the cover interact with current rotation and will it enhance weed growth
awareness of the number of cover crop options available
understanding mixtures/avaiable seed
time and expense
lack of commercial planters available for establishing varios species / mixes effectively
very little, as seed becomes more available (more demand>more supply)
some varieties cost a bit more and sometimes farmers are not willing to pay a little bit extra to seed the appropriate cover instead they just plant a cover and think that will work for all applications
Time cunsuming trying to figure it out the best mix of cover crops for my farming system
Long term studies- perennial crops
Doing it long term to see benefits
Lack of new desirable CC's
Are there indicator soil organisms that could quickly illuminate detierorations in soil health?
What is best in clay soil
comparitive costs of not using cover crops
lack of varities that have traits desired for cover cropping vs. production or grazing

peer pressure
adaptation to cover crop
so many options to pick from
decision support tools
developing lower cost mixes
lack of knowledge
cover crop varieties and mixtures- certifed seed variability in PR and caribbean
varities and mixes- if expensive seed underperforms it may sour a new farmer
mixes- good information on adapted varieties
lack of proper mixture
varieties and mixtures
not a lot of nematologist
adapting species to spraying
varieties of multispecies
varieties
to many factors to list timing of farm management
cover crop varieties and mixtures- lots of research needs to be done for the various soil types/regions of the county
lack of information on mixes, rates and planting dates
concern of introduction of newer vegetatoon and potential to become invasive weed
cover crops varieties- confusion from the proliferations of choices

Soil Moisture

Fear that the mixes will not control this invasive.
Growers don't see much benefit from cover crops in conventional tillage systems. They seem to be destroying any soil structure that the cover crop builds by tillage.
uncertainty of nutrient release/cycling
cost effectiveness of heavy residue cover crops, no-till planting into heavy residue, timing,
Local or regional cover crop seed sourcing
Using the correct stocking rate and grazing management
cost of equipment to plant or roll covers properly
timing and varieties
Proper seed bed preparation in smectitic clays
land owb=ners perceptionabout the way a field should look
late planting and early termination
we don't have enough information rebranding
moisture- expensive to do it right
limitation on soil moisture resources for a cash crop when cover crops are utilized

Grazing

Lack of nutrient analyses of grazed cover crops for livestock
crop farmers dont understand livestock production
Grazing potentially derceasing the total benefit possible from the covercrop that could go to benefit the following rowcrop.
Concerns about how the warm season crop may be affected
Economics of Grazing Covers

cost
Time management to manage Controled grazing. Fencing Costs$
The reductionist predilections of most scientists
Is there sufficient evidence for more species in cover crops to promote soil health?
Drought issues
Availability of diverse seed sources
LIMITED KNWOLEDGE OF DIRECT IMPACT
Grazing- they want to graze to much off
Grazing
need willingness desire to clean

Extension Outreach

growers still lack up to date accurate practical information
Cover crops do not represent an immediate increase in farm profits. Growers need to see an information package that will help justify the investment of deliberate cover crop use adoption
research and program sponsorship/farmers willing to plant
Effective extension Outreach
Not communicating/demonstrating practices in ways that make practical sense
What crops are available
Management

There are no silver bullet solutions with covercrops and tiral and error management is complicated and risky
Water soil relationship management with high residue cover during necessary field operations
skepticism
lack of specific info
promoting cover crops if they don't help out producers
extension
lack of buy in by some ext programs
we need a better understanding of extension
outreach- hard to persuade farmers fo need to change
funding is needed to supoort development
lack of education for researchers in effective communication skills
a lack of outreach