

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 collaboration 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 effectiveness 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 impact 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 necessary 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 precise

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

us 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 microbiological 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 too much

Not enough data on cost/benefit of cover crops

Return on planting cover crops doesn't meet requirements

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

Equipment cost

There are no silver bullet solutions with covercrops and trial 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 concerned 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

economics- 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- including 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 striptill 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 behind rye

Availability of novel termination equipment

can't 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.

varies across years/environments.

establishment methods with lack of equipment

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 preparation

concerns that there will not be enough growing time or moisture for establishment

resistance 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 research programs to collaborate share data sets to analyze projects from a systems perspective

cover crops establishment, termination, and residue management

producers are 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
traditional 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 demonstrations

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
length 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/available seed
time and expense
lack of commercial planters available for establishing various 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 consuming 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 deteriorations in soil health?
What is best in clay soil
comparative costs of not using cover crops
lack of varieties 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- certified seed variability in PR and caribbean
varieties 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 vegetation 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 owners perception about 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 don't understand livestock production
Grazing potentially decreasing 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 Controlled 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 KNOWLEDGE OF DIRECT IMPACT

Grazing- they want to graze too 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 trial 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 to need to change

funding is needed to support development

lack of education for researchers in effective communication skills

a lack of outreach