2023 - Planting & Termination Dates - Pasa Soil Health Benchmark Study - Row Crop cohort

Please review our field management record protocols (also found in the Methods Guide for Research Collaborators) for additional instructions and examples. Include annual and perennial crops and covers, perennial pastures, and pasture reseeding for the entire calendar year. Also include any cover crops that overwintered from the previous fall.

- *1 For direct seeded events, list seeding date; for transplanting events, list transplant date. Exact dates are important, except if the date is from a previous calendar year, in which case your best estimate is acceptable.
- *2a For cover crop mixes, please include all species if the cover crop mix is a personal blend, and please list each species in a separate row so we can capture the appropriate rates and prices. If it's a commercial mix, it does not have to be separated out, but please include the commercial brand name.
- *2b Specify if crop listed in (2a) is a cover crop with a "Y" for Yes and "N" for No. Cover crops do not include cash crops, hay, or pasture. For example, if wheat is to be harvested for grain and feed, it is considered a cash crop, and thus you would enter "N".
- *2c If planting is a cover crop, specify if entire cover crop will Winterkill in 2023/2024 with "Y" for Yes and "N" for No.
- *3 For each planting event, report the total area seeded or transplanted. For example, if corn is planted over an entire field, record 100%. If cover crops are planted over a third of the field, record 33%.
- *4 Use this column to record the unit for the Area Planted in the previous column. Units of Area Planted can be in acres or percentage of the field. Percentage of the field are the prefered units
- *5 Termination dates may coincide with a tillage event, harvest date, herbicide application or an estimated date of winterkill, if applicable. Exact dates are important, except if this date will be in a future calendar year, in which case your best estimate is acceptable.
- *6 Lbs/acre or the seed population/acre are the preferred seeding rates.
- *7 Use this column to record the unit for the Seeding Rate. For example, if you planted 30,000 corn seeds per acre, enter "K/ac" here.
- *8 List the variety or name of the seed in this column, if available.
- *9 Use this column to list the dollar price of the seed. These units should match the seeding rate units. Price per pound or price per seed count are the preferred units.
- *10 Use this column to record the seed price units. If you are using the price per bag, please list the quantity of the bag. For example, enter (\$)/50 lbs or (\$)/80K sds.

Farm	Field ID	Field Area (acres)	Planting Date (*1)	Crop (*2a)	Cover Crop	Entire Cover Crop Winterkill in 23-24? (*2c)	Area Planted		Termination	Seeding Rate (*6)	Seeding Rate	Seed Variety or Name (*8)	Seed Price	Seed Price Unit (*10)	Yield	Yield Unit
Example Farm	F1	12	5/17/23	Corn	N	N/A	100	%	10/25/23	30	K/ac	KF 52C20	\$185	80K/ac	180	bu/ac
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2023 - Planting & Termination Dates - Pasa Soil Health Benchmark Study - Row Crop cohort

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					Ente	er your red	ords be	low this	line.							
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2023 - Soil Disturbance & Equipment Activity - Pasa Soil Health Benchmark Study - Row Crop cohort

Please review our field management record protocols (also found in the Methods Guide for Research Collaborators) for additional instructions and examples. Record all tractor or human powered equipment that can cause compaction or soil disturbance in the field. Include items like plows, cultivators, spreaders, transplanters, sprayers, combines, no-till planters, seeders, mowers, hay making equipment, and hoes.

- *1 Please include applicable details that will help us understand the equipment you are using. For example, instead of putting "cultivator" you could put "two row shovel cultivator" or optionally, a make or model.
- *2 If applicable, please provide the approximate depth of disturbance for 0 enter "none", 0.5-4" enter "shallow", 5-8" enter "medium", 9"+ enter "deep"
- *3 Please provide the approximate speed of equipment for slow=under 2mph, medium=2-5mph, fast=5+
- *4 Report the total area covered by equipment activity. For instance, if you pass over a third of the field with a seeding drill, report 33% and do not attempt to estimate the actual area disturbed by the cultivator shanks vs. the undisturbed row space. If mowing an entire pasture, simply report 100%. If you make multiple passes, record each individual pass as a separate event.
- *5 Use this column to record the unit for Area Covered in the previous column. Units of Area Covered can be in acres, percentage of the field, or other units that are convenient for your record keeping. Acres or percentage of the field are the preferred units. For instance, if you are reporting 33% as the Area Covered, enter "%" here.

Farm Example Farm	Field ID	Field Area (acres)	Date	Implement (*1) No till drill	Disturbance Depth (*2) "none" "shallow" "medium" "deep" shallow	Equipment Speed (*3) "slow" "medium" "fast" medium	Area Covered (*4)	Area Covered Unit (*5)	Notes
LAGITIPIE I AITTI	1011	10		Enter your records below this row	Sitaliow	Inediani	100	/0	
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			_					_	

2023 - Soil Disturbance & Equipment Activity - Pasa Soil Health Benchmark Study - Row Crop cohort

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LAGITIPIE I AITTI	1011	10		Enter your records below this row	Sitaliow	Inediani	100	/0	
				,					
			_					_	

2023 - Soil and Fertilizer Amendments - Pasa Soil Health Benchmark Study - Row Crop cohort

Please review our field management record protocols (also found in the Methods Guide for Research Collaborators) for additional instructions and examples. Include all items such as manure, compost, straw mulch, hay feed in pastures, lime, purchased fertilizers. This also includes any soil amendments added through irrigation systems or amendments applied as a foliar spray.

For livestock: Do not estimate manure deposited by grazing animals on your pastures or fields; only include manure added to fields from a barn or other storage source.

- *1 Please provide the detailed product name and if available, please send us analysis results for any manure or compost products applied on your fields. For any compost product, please list the main ingredients.
- *2 For soil amendments, report the total area covered with amendment application equipment. For instance, if a manure spreader is used to apply manure to a third of a field, report 33%.
- *3 Use this column to record the unit for Area Covered in the previous column. Units of Area Covered can be in Acres, percentage of the field, or other units that are convenient for your record keeping. For instance, if you are reporting 33% as the Area Covered, enter "%" here.
- *4 It is preferable to report the total quantity applied of each amendment (e.g. tons or pounds). You can also report the rate (e.g. tons/ac). If you are applying liquid, please report the quantity prior to any dilution.
- *5 Use this column to record the unit for the Quantity in the previous column. For instance, if you are reporting 1.5 tons, enter "tons" here.

*6 Use this section to	record key informat	tion from an	alysis resu	ults for any manure or	compost product	s, if availa	ble.			Anaylsis matt	aylsis Info for organic matter inputs (*6)		
Farm	Field ID	Field Area (acres)	Date	Product Name (*1)	Brand	Area Covered (*2)	Area Covered Unit (*3)	Quantity (*4)	Quantity Unit (*5)	% moisture content	% total N (as is)	% total P (as is)	Notes
Example Farm	5H	12	3/10/23	dairy manure		100	%	40	tons	64	8.0	0.2	
Example Farm	5H	12	5/20/23	28-0-0 UAN		100	%	1400	lbs				
				Enter ye	our records be	low this	line.						

2023 - Soil and Fertilizer Amendments - Pasa Soil Health Benchmark Study - Row Crop cohort

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2023 - Pesticide records - Pasa Soil Health Benchmark Study - Row Crop cohort

Please review our field management record protocols (also found in the Methods Guide for Research Collaborators) for additional instructions and examples.

Within these records, please include 1) pesticides used for crop burndown, weed control, or pest and disease problems and 2) adjuvants, surfactants, stabilizers.

- *1 Please provide the detailed brand and product name.
- *2 Report the total area covered with the product application equipment. For instance, if a sprayer is used to apply a pesticide to a third of a field, report 33%.
- *3 Use this column to record the unit for Area Covered in the previous column. Units of Area Covered can be in Acres, percentage of the field, or other units that are convenient for your record keeping. For instance, if you are reporting 33% as the Area Covered, enter "%" here.
- *4 Please report the quantity prior to any dilution. It is preferable to record the total quantity applied to the field of each product (e.g. ounces or pounds). You can also report the rate (e.g. oz per acre).
- *5 Use this column to record the unit for the Quantity in the previous column. For instance, if you are reporting 20 oz, enter "oz" here.

Farm	Field ID	Field Area (acres)	Date	Brand and Product Name (*1)	Area Covered (*2)	Area Covered Unit (*3)	Quantity of Product (*4)	Quantity Unit (*5)	Notes
Example Farm	5H	12	6/30/23	RoundUp Power Max 3	100	%	20	fl oz/ac	
			Ent	er your records below this	s line.				

2023 - Pesticide records - Pasa Soil Health Benchmark Study - Row Crop cohort

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Example Farm	5H	12	6/30/23	RoundUp Power Max 3	100	%	20	fl oz/ac	
			Ent	er your records below this	s line.				

2023 - Animal Activity (Grazing & Pasturing Events) - Pasa Soil Health Benchmark Study - Row Crop cohort

Please review our field management record protocols (also found in the Methods Guide for Research Collaborators) for additional instructions and examples.

Record the animal type, number of animals, average animal weight, and time spent in field or paddock for each grazing or pasturing event.

- *1 For grazing and pasturing events, report the area grazed or pastured for each event. For instance, if cows are allowed to graze the entire area of a large paddock over several days, record 100% for area. However, for animals in smaller, enclosed units, like broilers in an enclosed chicken tractor, record all moves through a field as one pastured event, instead of separating out each move the tractor makes. If you estimate the tractor and broilers passed over a guarter of the field over the entire period, record the area covered as 25%.
- *2 Use this column to record the unit for Area Covered in the previous column. For grazing and pasturing events, record the area units in acres or percentage of the field. For instance, if you are reporting 100% as the Area Covered, enter "%" here.
- *3 For each grazing or pasturing event, please record the number of sub paddocks or sections that you may have set up within the field or paddock to manage animal movement through the area. For instance, if you divided a field or paddock into three separate sections or sub paddocks that your cows moved through between the start date and end date, enter "3" here. If your cows had access to the entire field or paddock area during the entire time period between the start date and end date, enter "0" here.

Farm	Field ID (paddock)	Field or Paddock Area (acres)	Start Date	End Date	Animal Type	Animal Count		(*1)	Area Covered Unit (*2)	# of sub- paddocks or sections (*3)	Notes
Example Farm	P1	12	6/23/23		milk cows	60		100	%	0	
		<u> </u>		Ente	r your records b	pelow this	line.	ı	T		

2023 - Animal Activity (Grazing & Pasturing Events) - Pasa Soil Health Benchmark Study - Row Crop cohort

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		<u> </u>		Ente	r your records b	pelow this	line.	ı	T		