## 2023 - Planting & Termination Dates - Pasa Soil Health Benchmark Study

Please review our field management record protocols (also found in the Methods Guide for Research Collaborators) for additional instructions and examples. Include any annual and perennial crops and covers, perennial pastures, and pasture reseeding for the entire calendar year. Also include any perennial covers or 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 When listing cover crop mixes, please include all species. If you have a perennial pasture, please still include this in these records. Please give us an approximate date of perennial pasture establishment and a species mix, if known.
- \*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 anytime from December 2023 to March 2024 with "Y" for Yes, "N" for No or if not applicable, "N/A"
- \*3 For each planting event, report the total area seeded or transplanted. For example, if clover is planted over an entire pasture, record 100%. If beets 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 bed feet, acres, percentage of the field, or other units that are convenient for your record keeping. For row crops, cover crops or pasture seeding, acres or percentage of the field are the preferred units. For cash crops, like vegetables, bed feet are the preferred units. For instance, if you are reporting 100 bed feet as the Area Planted, enter "bed feet" here. For vegetable farms, please also estimate the bed width for each crop.
- \*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.

Il a luture caleridai year, ili			10 0000 010		1					1	
Farm	Field ID	Field Area (acres)	Planting Date (*1)	Crop (*2a)	Cover Crop (*2b)	Was the entire Cover Crop Winterkilled in 23-24? (*2c) (Y/N)	Area Planted (*3)	Area Planted Unit (*4)	Bed Width (ft) (center to center) veg only	Termination Date (*5)	Notes
Example Farm	F2	1	4/14/23	Kale	N	N/A	1200	bed ft	5	10/18/23	
			-	Enter your records below	this r	 DW					
				•							

## 2023 - Planting & Termination Dates - Pasa Soil Health Benchmark Study

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Example Farm	F2	1	4/14/23	Kale	N	N/A	1200	bed ft	5	10/18/23	
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				•							

### 2023 - Soil Disturbance & Equipment Activity - Pasa Soil Health Benchmark Study

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 an interrow cultivator, 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 bed feet, 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.

your reserving. Acre	percentage of the	c neid are the	preferred unit	s. For instance, if you are reporting 33% as	Disturbance	rea, enter 70	nore.		
Farm	Field ID	Field Area (acres)	Date	Implement (*1)	Disturbance Depth (*2) "none" "shallow" "medium" "deep"	Equipment Speed (*3) "slow" "medium" "fast"	Area Covered (*4)	Area Covered Unit (*5)	Notes
Example Farm	F2	1	06/01/23	two row shovel cultivator	shallow	medium	100	%	
				Enter your records below this row					

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Example Farm	F2	1	06/01/23	two row shovel cultivator	shallow	medium	100	%	
				Enter your records below this row					

# 2023 - Soil and Fertilizer Amendments - Pasa Soil Health Benchmark Study

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%. If a mineral concentrate is applied by hand to 1200 bed feed of tomatoes, report 1200 bed feet.
- \*3 Use this column to record the unit for Area Covered in the previous column. Units of Area Covered can be in bed feet, row feet, square feet, 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	n to record ke	y informat	tion from a	nalysis results for any	manure or comp	ost produ	cts, if avai	lable.			Anaylsis matte	Info for o er inputs (	rganic *6)	
Farm	Field ID	Field Area (acres)	Date	Product Name (*1)	Brand	Area Covered (*2)	Area Covered Unit (*3)	Bed Width (ft) (center to center) veg only	Quantity (*4)	Quantity Unit (*5)	% moisture content	% total N (as is)	% total P (as is)	Notes
Example Farm	F2	1	3/30/23	poultry manure		100	% of field		3	tons	26	2	2.5	
Example Farm	F2	1	5/20/23	5-5-3 Fertrell	Fertrell	2,000	bed ft	5	110	lbs				
					Enter rec	ords bel	ow this r	ow.						

# 2023 - Soil and Fertilizer Amendments - Pasa Soil Health Benchmark Study

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Example Farm	F2	1	5/20/23	5-5-3 Fertrell	Fertrell	2,000	bed ft	5	110	lbs				
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## 2023 - Animal Activity (Grazing & Pasturing Events) - Pasa Soil Health Benchmark Study

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 quarter 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	Avg Weight (lbs)	Area Covered (*1)	Area Covered Unit (*2)	# of sub- paddocks or sections (*3)	Notes
Example Farm	P1	12	6/23/23		milk cows	60		100	%	0	
				Eı	nter records belo	ow this lin	е				

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