Source:

RACC Working Paper: An Assessment of Prevalence and Social Psychological Determinants of Farmer Nutrient Management Practice Adoption Behaviors: Evidence from Lamoille and Missisquoi Watersheds in the Lake Champlain Basin

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USDA – NASS 2013 Farmer Survey Responses

Type	Total Population	Percentage of the Population	Number of Responses	Percentage of Responses to Survey
Small Farms	361	28.25%	18	23.38%
Medium Farms	885	69.25%	57	74.03%
Large Farms	32	2.50%	2	2.60%
Total by Farm Size	1278		77	
Conventional	1100	86.07%	58	72.50%
Organic	178	13.93%	22	27.50%
Total by Farming Method	1278		80	

Question Structure

30. In the past three years, have you implemented a Nutrient Management Plan for reducing phosphorus and/or nitrogen outflows from or inflows to your farm?

A Nutrient Management Plan may be formal (through an agency) or informal (designed and implemented by you.)

Please check one.

No (skip to question 20)	
Yes (approved by an Agency)	
Yes (not approved by an Agency)	
Not sure	

31. For each component of your Nutrient Management Plan, please circle the extent to which you adopted each practice in the past 3 years:

Use the following numbers in the extent of adoption column:

0= no adoption
1=adopted at one quarter of full capacity
2=adopted at half of full capacity
3=adopted at three quarters of full capacity
4=adopted at full capacity

PRACTICE	**EXTENT OF ADOPTION (0-4)**
Planned crop rotations	0 1 2 3 4
Soil test at least every 3 years	0 1 2 3 4
Strip Cropping	0 1 2 3 4
N, P, & K applications at rates recommended by soil tests	0 1 2 3 4
Buffers at field edges	0 1 2 3 4
Cover cropping	0 1 2 3 4
Reduced tillage (strip, zone, and no)	0 1 2 3 4
Applying manure at recommended rates and times	0 1 2 3 4
Applying fertilizer at recommended rates	0 1 2 3 4
Incorporating manure and fertilizer as quickly as possible after application	0 1 2 3 4
Manure spreading setbacks (from water bodies and private/public wells)	0 1 2 3 4

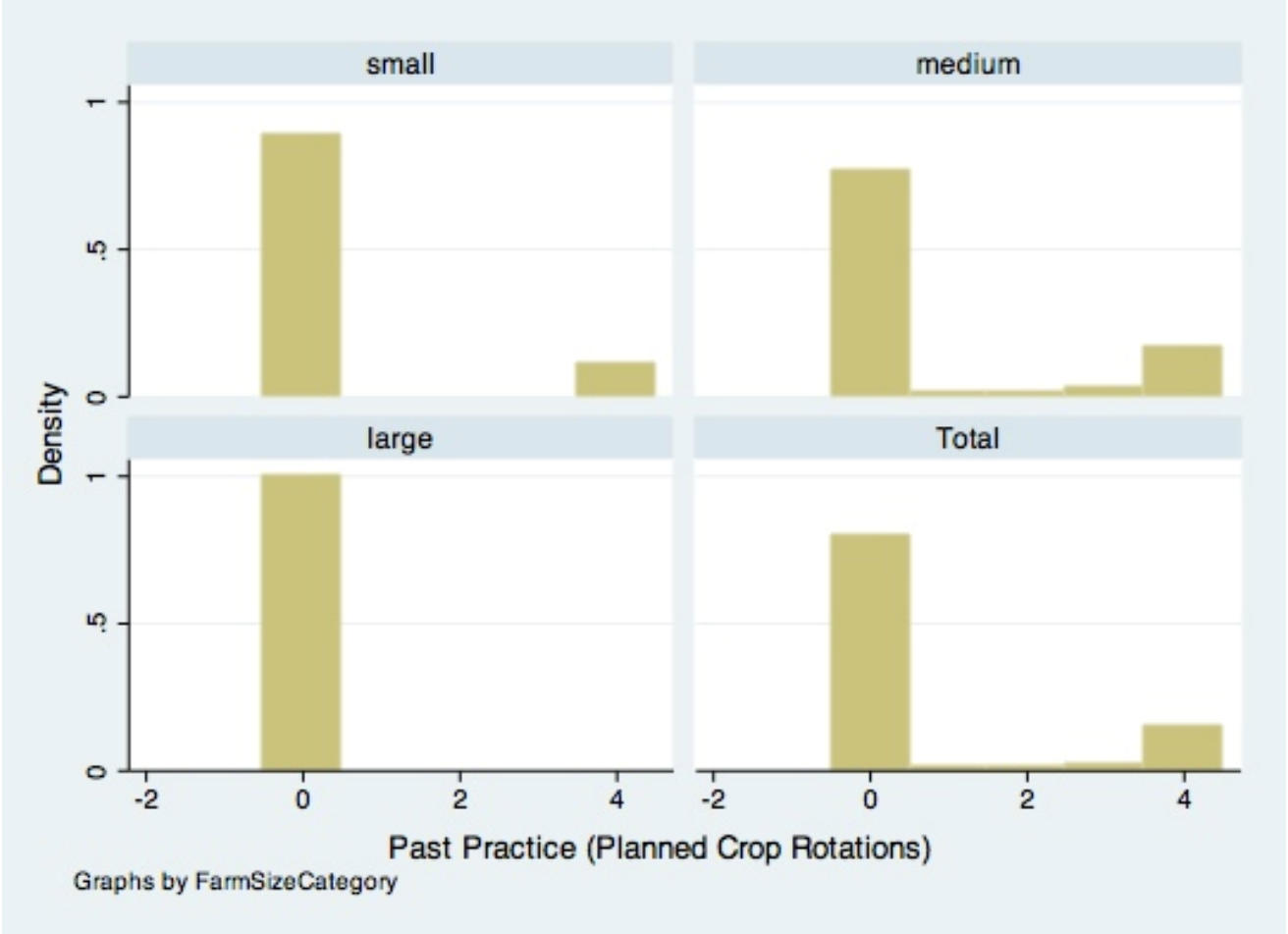
Observed Practice Adoption Rates for All Farm Types

Variable	Observations	Adoption Rate
Adopter (Planned Crop Rotations)	80	20.0%
Adopter (Soil Test)	80	32.5%
Adopter (Strip Cropping)	80	13.8%
Adopter (N, P & K Applications)	80	27.5%
Adopter (Buffers)	80	26.3%
Adopter (Cover Cropping)	80	20.0%
Adopter (Reduced Tillage)	80	20.0%
Adopter (Applying fertilizer)	80	28.8%
Adopter (Incorporating manure and fertilizer)	80	27.5%
Adopter (Manure spreading)	80	32.5%
Organic	80	50.0%
Conservation Easement	80	22.5%
Net loss	80	17.5%

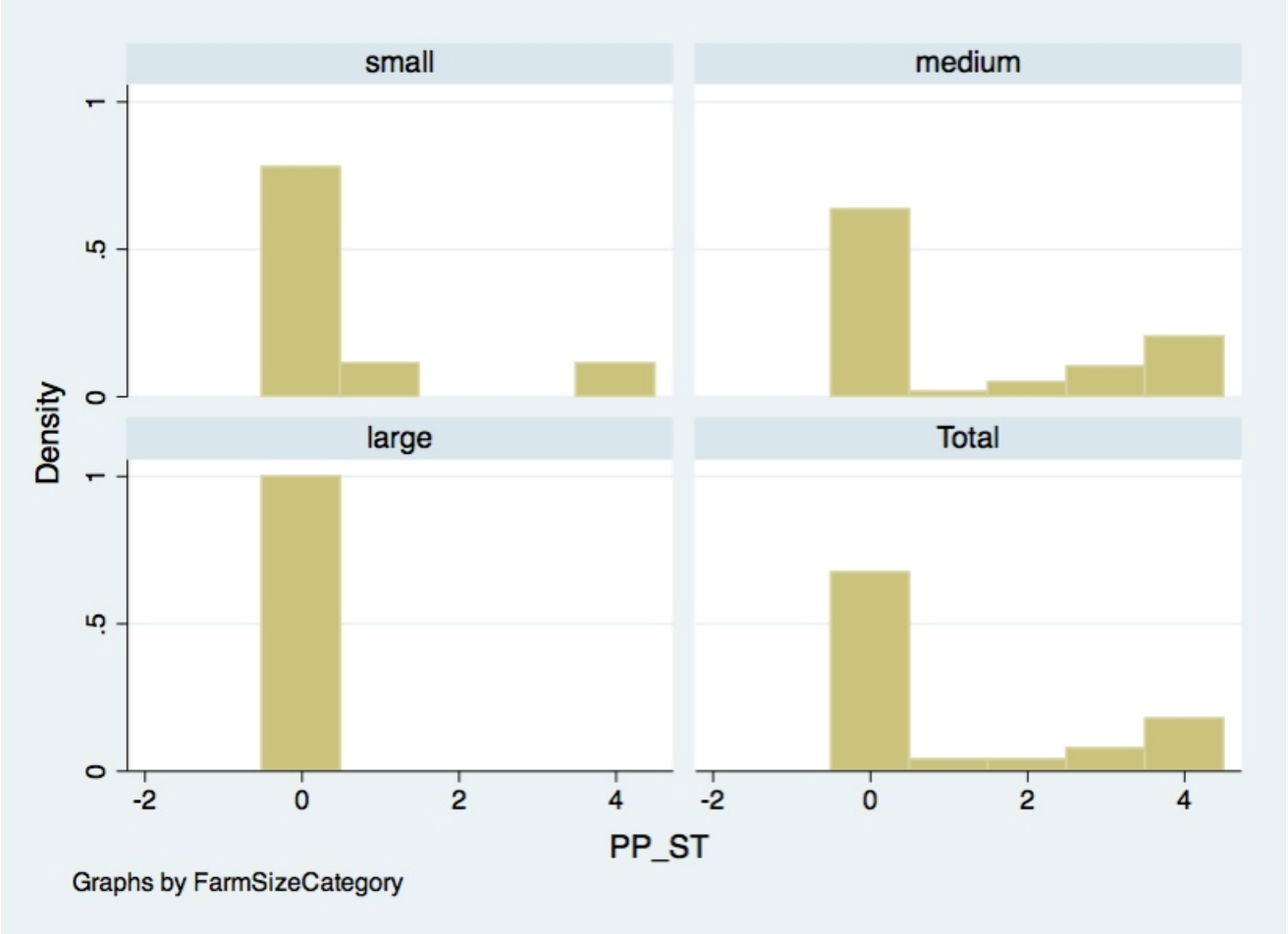
Key for Slides on Farm Size-Specific Adoption of Practices within Nutrient Management Plans

- Density (Y-axis) represents the percentage of respondents providing the given answer (0-4); this can be interpreted as adoption percentages
- Answers:
  - 0: Practice is not utilized
  - 1-4: Practice is utilized to either a lesser (1) or greater (4) degree

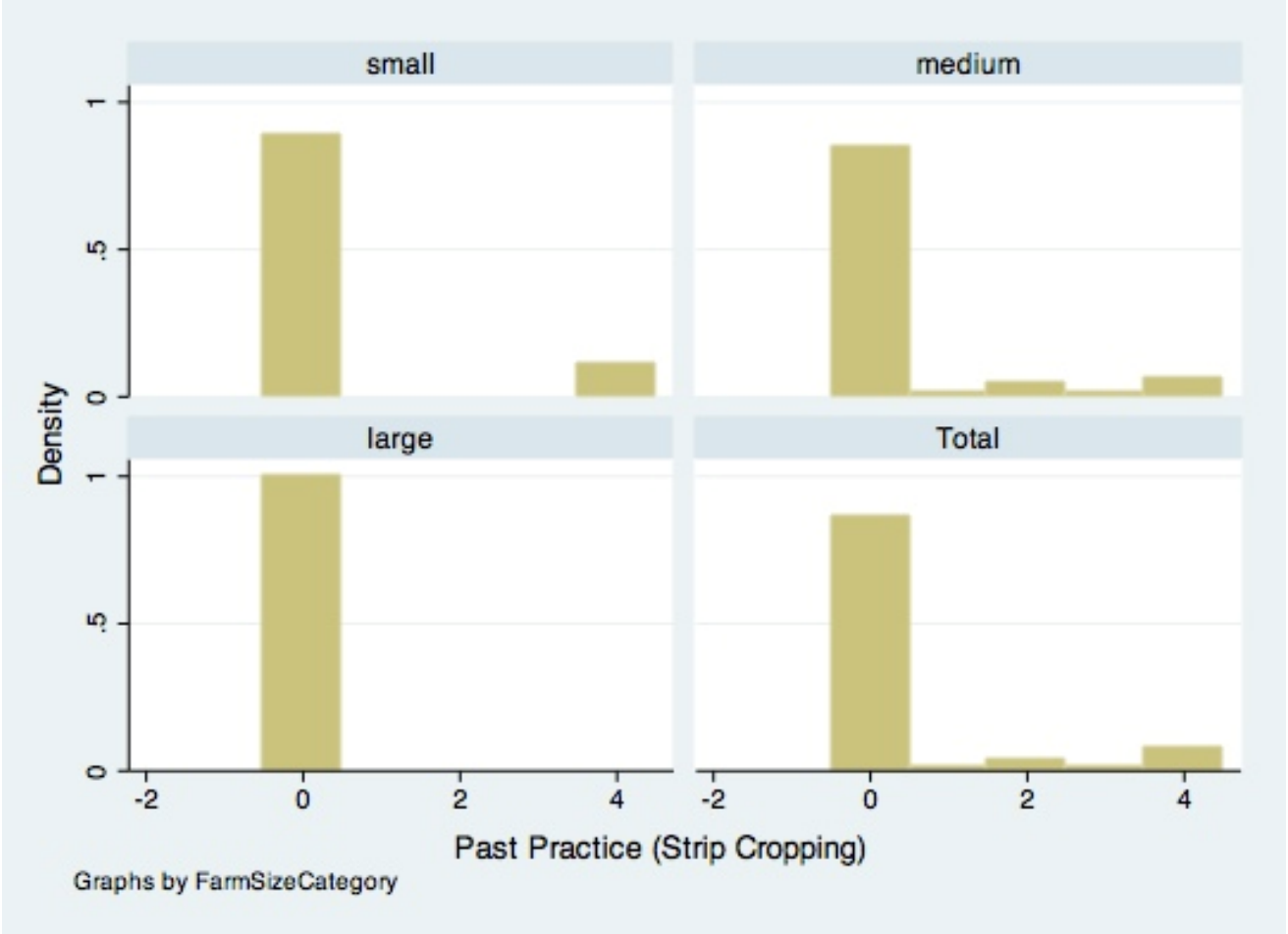
Planned Crop Rotation



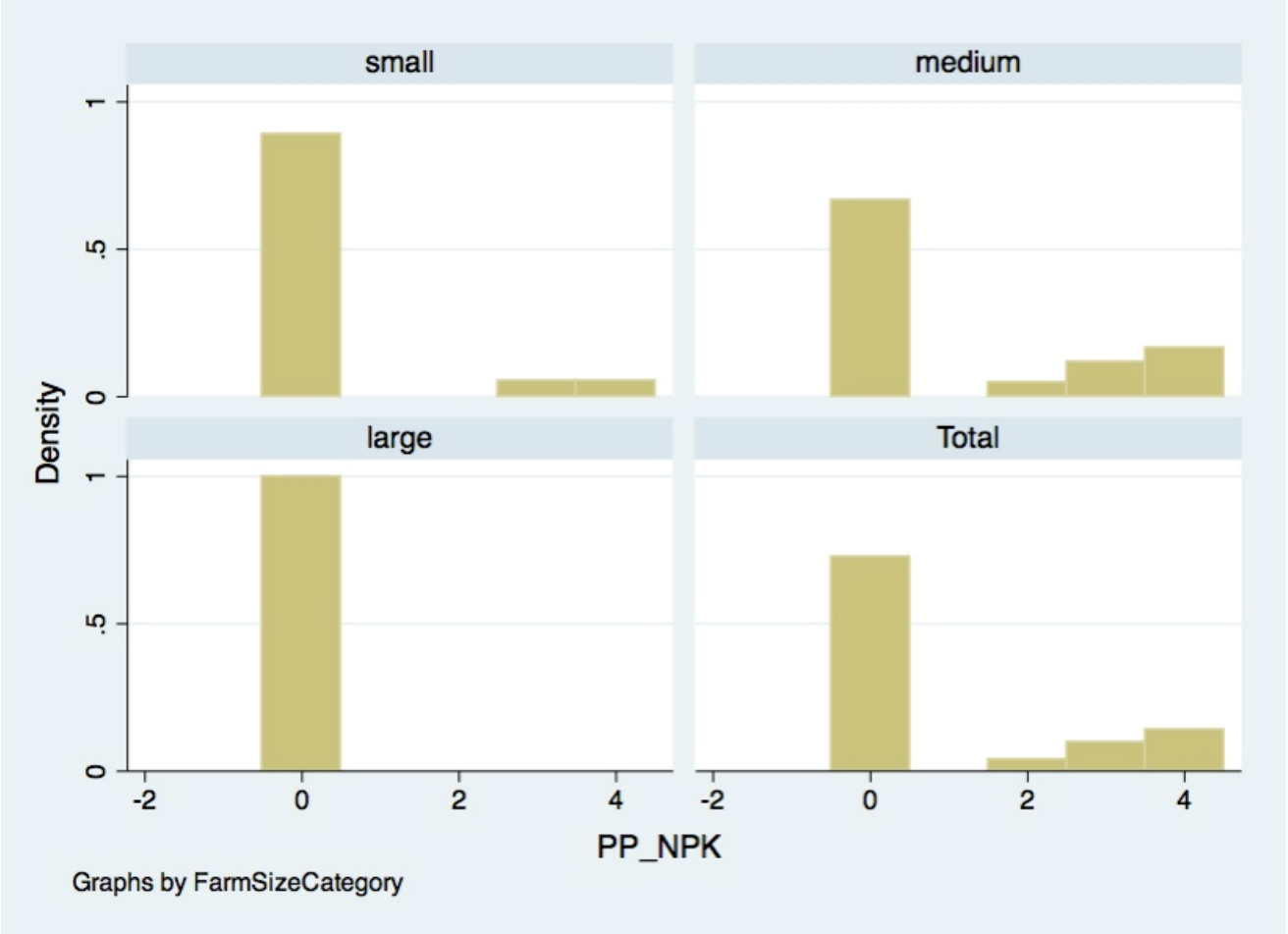
Soil Test at least every 3 years



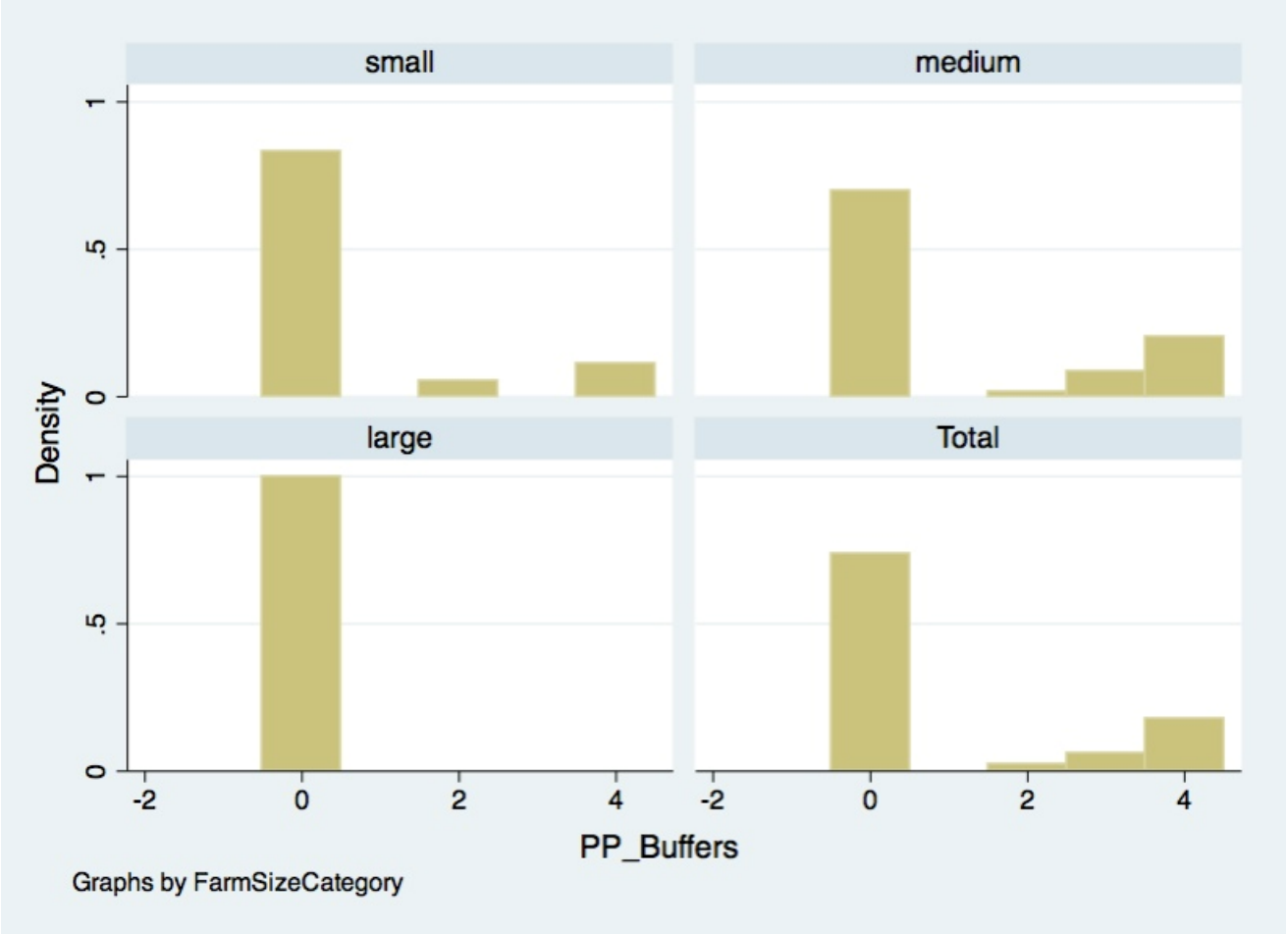
Strip Cropping



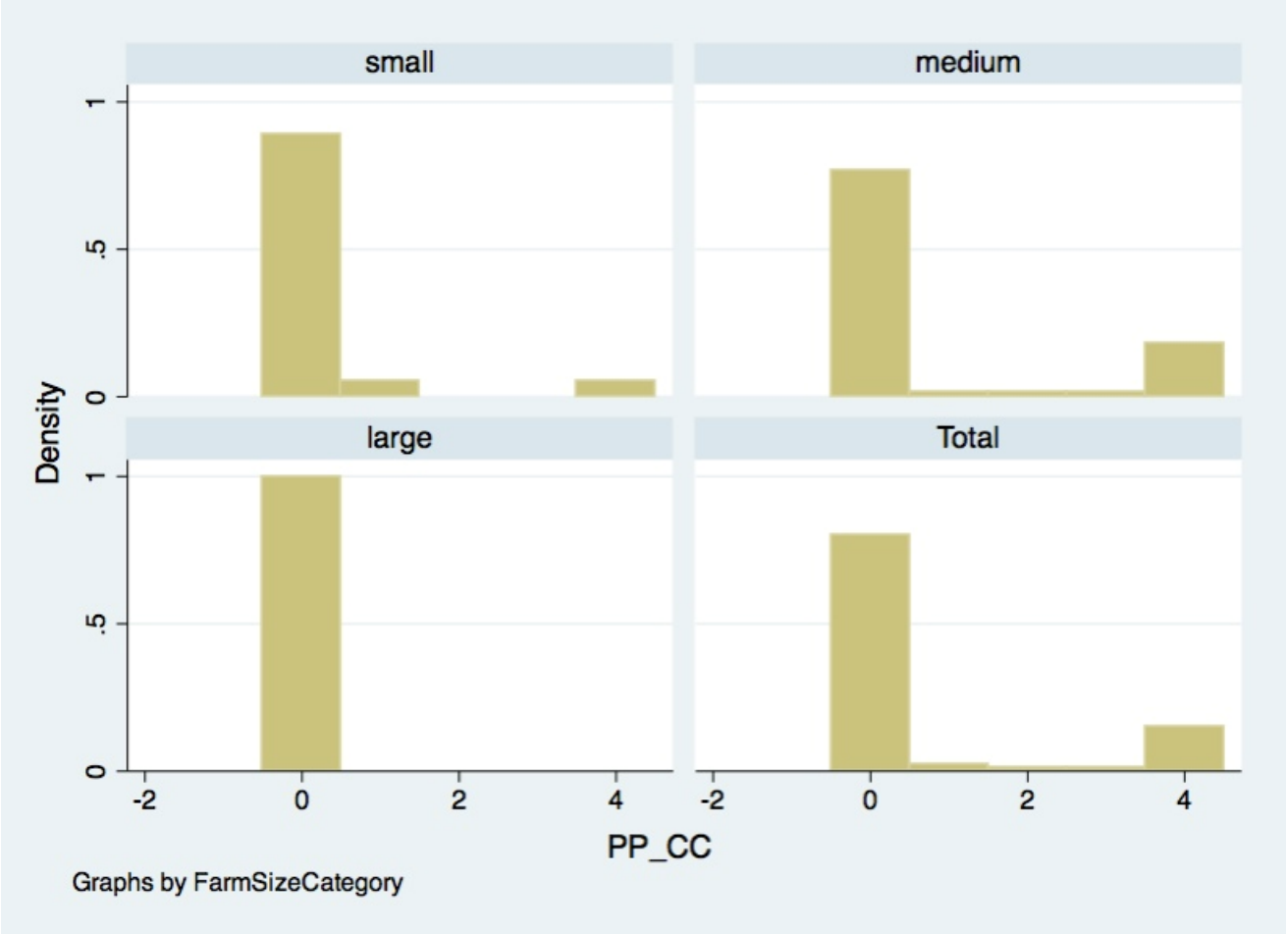
N, P & K Applications at rates recommended by soil tests



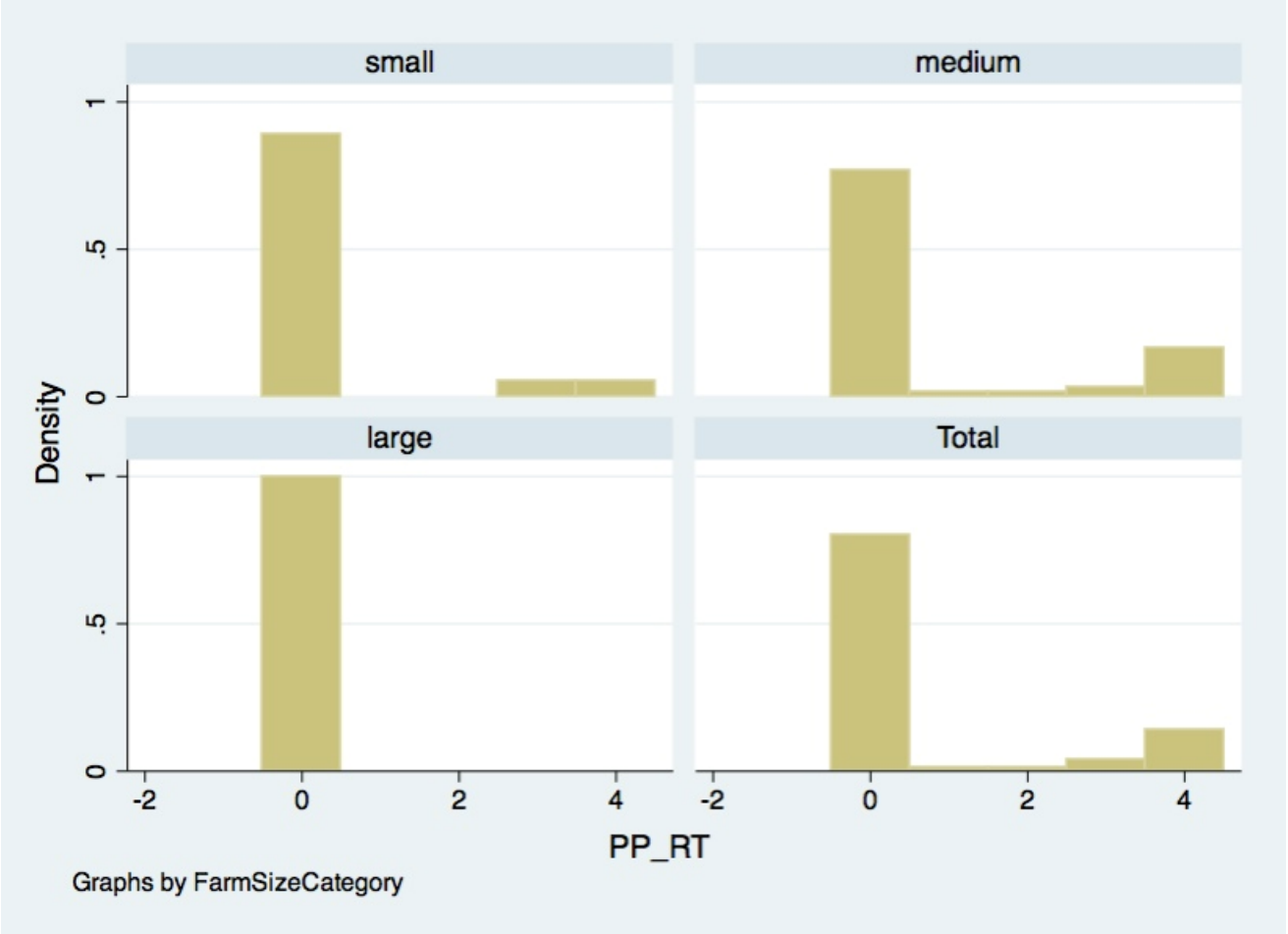
Buffers at Field Edges



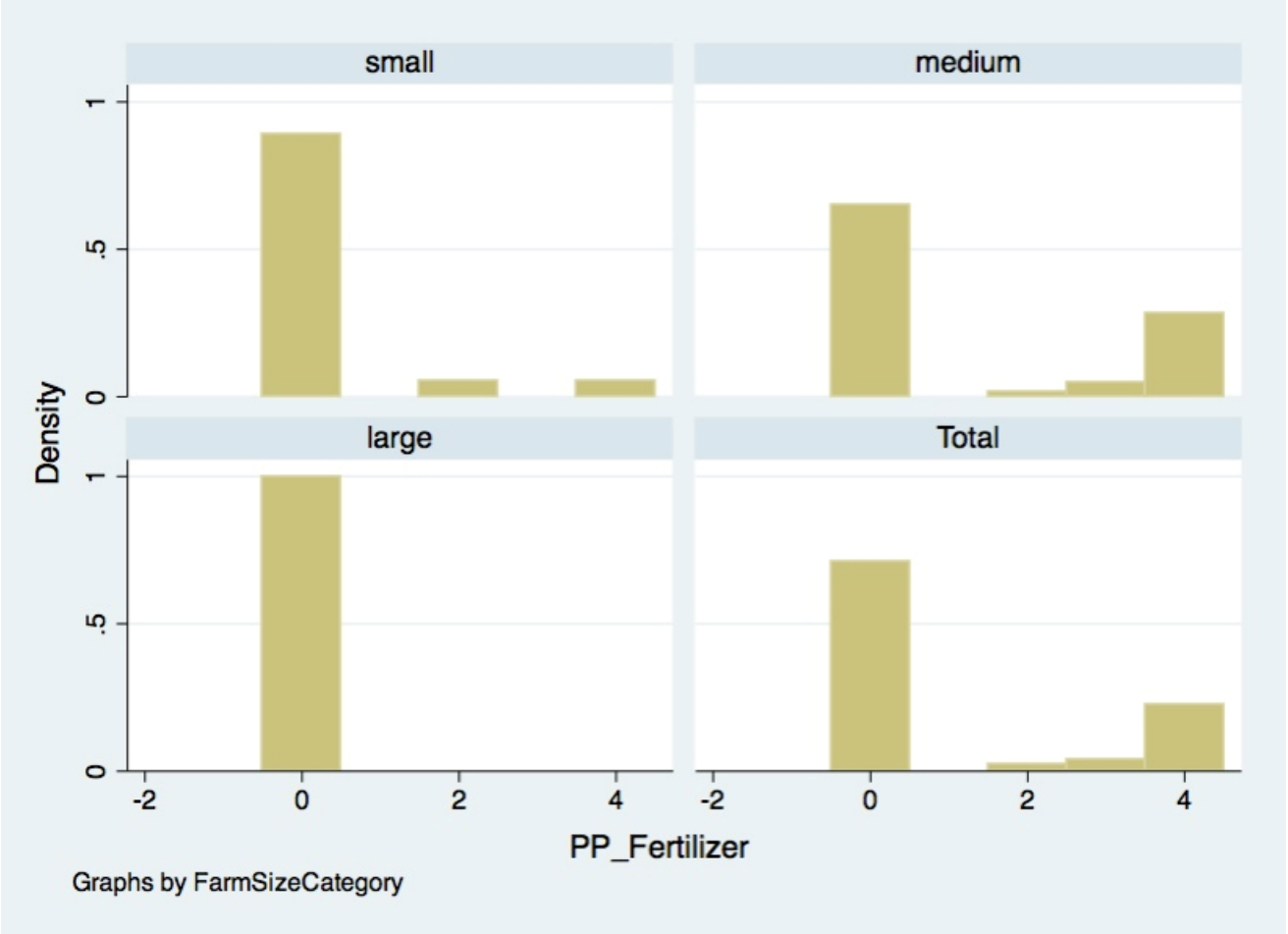
Cover Cropping



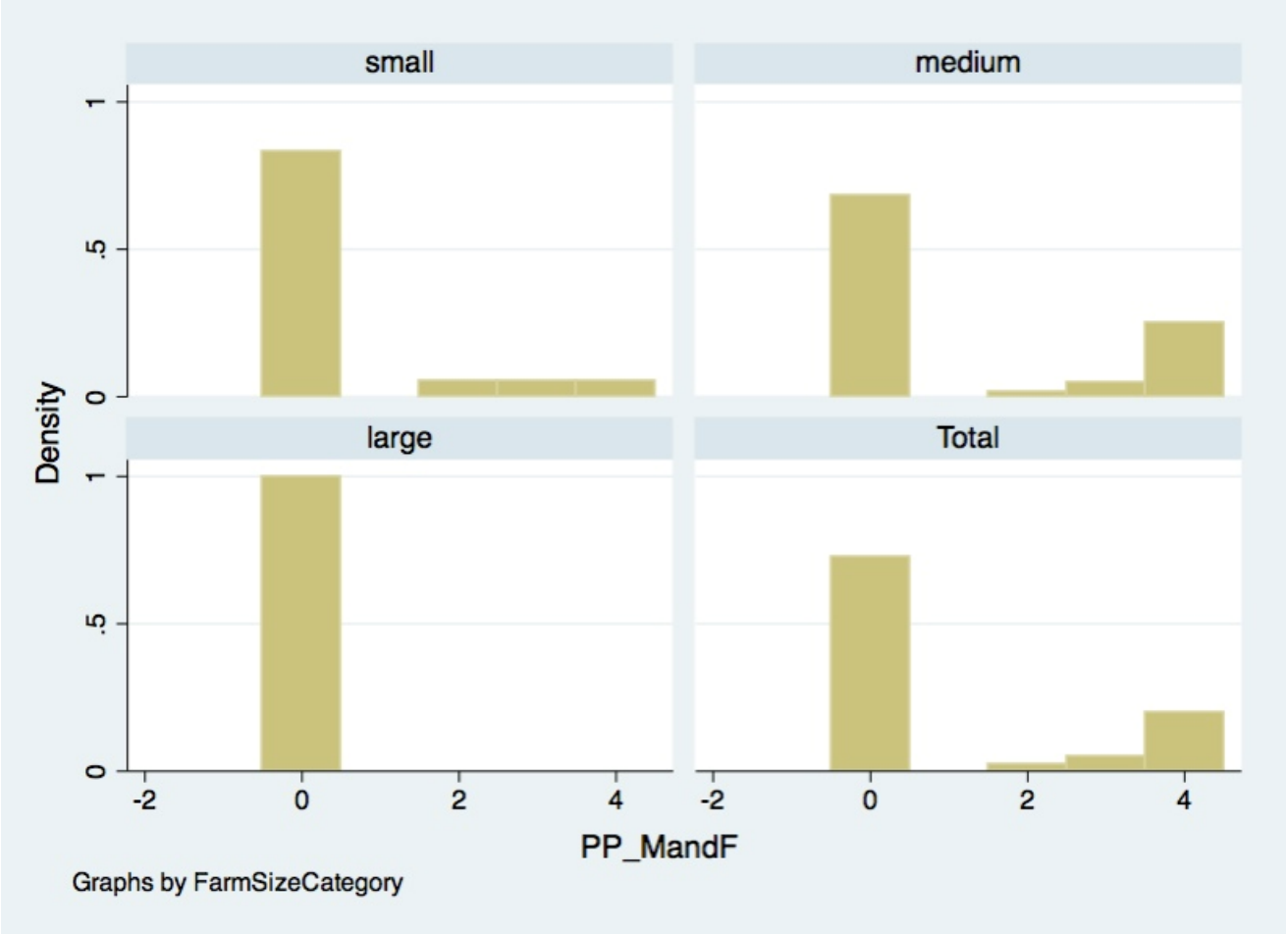
Reduced Tillage (strip, zone and no)



Applying fertilizer at recommended rates and times



Incorporating manure and fertilizer as quickly as possible after application



Manure spreading setbacks (from water bodies and private/public wells)