MANITOBA Soil Science Society AGM 2022

**POSTER QUESTIONS**

Total possible CCA Credits available: 1.0 CEU’s

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20 questions for 1.0 CEU’s in Nutrient Management

 TO RECEIVE CCA CREDITS YOU MUST:

* write your name, signature and CCA # below
* answer questions independently
* correctly answer 14/20 questions
* scan this sheet and your answer sheet and email to John.heard@gov.mb.ca by February 10, 2022
* or fax to John Heard at 204 745-5690

 NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 SIGNATURE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 CCA #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer table: record you answers.

Nutrient Management

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| --- | --- | --- | --- | --- |
| 1. | 6. |  | 11. | 16. |
| 2. | 7. |  | 12. | 17. |
| 3. | 8. |  | 13. | 18. |
| 4. | 9. |  | 14. | 19. |
| 5. | 10. |  | 15. | 20. |

**NUTRIENT MANAGENT – COMPLETE ALL 20 QUESTIONS (1-20) FOR 1 CEU**

 **Efficacy of Urease Inhibitor with and without Nitrification Inhibitors in Reducing Ammonia Volatilization from Urea**

1. The nitrification inhibitor in Active Stabilizer is:
	1. NBPT
	2. nitrapyrin
	3. DCD
	4. DMPP
2. The formulation with the greatest NBPT rate (concentration x application rate) was: :
	1. Active Stabilizer Plus
	2. Agrotain Advanced
	3. Active Stabilizer
	4. Arm U 30%
3. The equivalent nitrogen application rate in the study was:
	1. 100 g-1 available N
	2. 100 % NH3
	3. 120 kg N/ha
	4. 155 mg/kg nitrate-N
4. The greatest reduction in volatilization was achieved with:
	1. Active Stabilizer Plus
	2. Active Stabilizer
	3. ARM U 18%
	4. Agrotain
5. Cumulative ammonia loss from banded urea was:
	1. Less than from broadcast placement
	2. 4.59 kg ha-1
	3. 87%
	4. 78%

**Field evaluation of biological nitrogen fixing (BNF) products for non-legumes**

1. The bacteria in the product Envita is called:
2. *Methylobacterium symbioticum*
3. *Gluconacetobacter diazotrophicus*
4. *Gluconacetobacter symbioticum*
5. *Methylobacterium diazotrophicus*
6. Products are sprayed in the morning instead of afternoon
7. To avoid scorching
8. For better coverage
9. So stomata are open
10. To reduce drift
11. The highest canola yields were located at:
12. St Claude
13. Roseisle
14. Portage
15. Homewood
16. Significantly higher corn yield at Portage resulted from:
17. Utrisha applications
18. Envita application
19. 100% N rate
20. 70 % N rate
21. Utrisha produced significant yield increases in on-farm-tests at:
22. Homewood
23. Lenore
24. McGregor
25. No sites

**Soil sampling fields with banded fertilizer**

1. Strip till placement of fertilizer produced:
	1. Higher P levels between rows
	2. Lower P levels in the strip
	3. Higher P levels in the strip
	4. Similar P levels in the strip and between rows
2. Proper soil sampling strip tilled fields is for:
	1. 5 samples in the row for every sample between rows
	2. 3 samples between rows for every sample in the row
	3. 1 sample in the row for every sample between rows
	4. 3 samples in the row for every sample between the row
3. The P concentration in the 0-2” depth was about \_\_\_\_ times that of the 0-6” depth
	1. 2
	2. 3
	3. 4
	4. 5
4. The highest soil P levels from the High P treatment were found:
	1. In the band
	2. 3” beside the band
	3. In row middles
	4. With cross-section sampling
5. The most aggressive volunteer canola growth was located
	1. In the seed-row
	2. In the side-band
	3. In the mid-row band
	4. In the wheel tracks

**Conventional and Novel Fertility Recommendations for Pasture**

1. The greatest impediment to production on the Stockton soil is:
	1. fertility
	2. stoniness
	3. salinity
	4. wind erosion
2. The Pedogenesis soil report listed which nutrients as deficient, in contrast to AgVise:
	1. N, P, K
	2. Ca. Mg, S
	3. Zn, Fe, Mn
	4. B, Cl,
3. How many mineral elements were in the Pedogenesis fertilizer blend
	1. 10
	2. 12
	3. 14
	4. 16
4. The highest forage yield resulted from:
	1. The Pedogenesis fertilizer
	2. The manure application
	3. The control plot
	4. The conventional fertilizer
5. The Pedogenesis fertilizer treatment increased:
	1. Soil pH
	2. Forage relative feed value
	3. Leaf spurge infestation
	4. Soil Mg, S, Cl, Na and Mn levels