Agricultural Sensitivities

ERRATA

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Fertilizer literature values, preliminary

There is a large range in reported values with less agreement than for manure

To compare values across studies with different ag-land composition, I have normalized by corn acres or intensive ag. acres. These values should be more comparable to the tabulated P6 values below.

TN

- Range: 0.03-0.39
  - Note: Not a true range because models and meta-analyses often report a CI.
- Median: 0.11 -> 0.182
- Mean: 0.13 -> 0.198
- Very close to current values, however the large range in values requires additional review and possibly calibration.

TP

- Range: 0.011-0.12
  - Note: Not a true range because models and meta-analyses often report a CI.
- Median: 0.032 -> 0.039
- Mean: 0.043 -> 0.06

P6 values

LU	TN	WEP	Runoff P
Grain w/ Manure	0.26	0.02	0.05
Specialty Crop High	0.25	0.02	0.05
Grain w/o Manure	0.18	0.02	0.05

Manure literature values, preliminary

Where methods are comparable there is decent agreement across models and field studies.

To compare values across studies with different ag-land composition, I have normalized by corn acres or intensive ag. acres. These values should be more comparable to the tabulated P6 values below.

TN

- Range: 0.014-0.28
  - Note: Not a true range because models and meta-analyses often report a CI.
- Median: 0.094 -> 0.129
- Mean: 0.099 -> 0.162
- The range encompasses P6 sensitivities.
- The range of P6 ensemble model sensitivities was greater than in the literature.
- Median literature sensitives exceeds P6 median (0.04).

TP

- Range: 0.009-0.08
  - Note: Not a true range because models and meta-analyses often report a CI.
- Median: 0.026 -> 0.056
- Mean: 0.0332 -> 0.057

P6 values

LU	TN	WEP	Runoff P
Grain w/ Manure	0.16	0.02	0.05
Specialty Crop High	0.16	0.02	0.05

Manure and fertilizer comparison

- ~~Manure and fertilizer sensitivity are likely more comparable than represented in P6.~~
  - ~~In P6, fertilizer was 3-5 times more sensitive than manure.~~

This was incorrect. P6 fertilizer/manure ratio is consistent with the literature.

Fertilizer N S:Manure N S

- Range: 0.8-4
  - Note: Only calculated from studies which evaluate both.
- Median: 1.2
- Mean: 1.4

- ~~P sensitivity values in the literature are also generally higher than represented in P6.~~

This was incorrect. I was comparing the wrong values.