**Supplementary Materials.**

**Table S1. Trait matrix used to assign farms to regenerative or conventional corn production systems**. The composite rank scores are based on the number of regenerative practices used on a particular farm. Farms whose rank scores are in the top 50% of farms are considered regenerative (shaded rows); those with rank scores in the lower half are conventional (white rows). To aid interpretation, additional traits of each system could be included in enhanced trait matrices.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Reference town | Farm locations (latitude, longitude | Cover crop (yes: 1; no: 0)  | Insecticide(no: 1; yes: 0)  | Other pesticides(no: 1; yes: 0)  | Tillage(yes: 1; no: 0) | Grazed corn field(yes: 1; no: 0) | Composite rank score |
| Bladen, NE | 40.31971, ‑98.57358 | yes | no | yes | no | no | 3 |
| Bladen, NE | 40.33703, ‑98.56301 | no | yes | yes | yes | no | 0 |
| York, NE | 40.63054, ‑97.66534 | yes | no | yes | no | no | 3 |
| York, NE | 40.97390, ‑97.49031 | no | yes | yes | yes | no | 0 |
| Bismarck, ND | 46.85280, ‑100.60131 | yes | no | no | no | yes | 5 |
| Bismarck, ND | 46.85280, ‑100.35145 | no | yes | yes | no | no | 1 |
| Bismarck, ND | 46.81734, ‑100.51257 | yes | no | yes | no | yes | 4 |
| Bismarck, ND | 47.14250, ‑100.19720 | no | yes | yes | no | no | 1 |
| White, SD | 44.42572, ‑96.58806 | yes | no | no | yes | no | 3 |
| hite, SD | 44.41155, ‑96.60008 | no | yes | yes | yes | no | 0 |
| Pipestone, MN | 44.11446, ‑96.32468 | yes | no | no | yes | no | 3 |
| Pipestone, MN | 44.12416, ‑96.36422 | no | yes | yes | yes | no | 0 |
| Toronto, SD | 44.59248, ‑96.57923 | yes | yes | yes | no | no | 3 |
| Toronto, SD | 44.57960, ‑96.58367 | no | yes | yes | yes | no | 0 |
| Gary, SD | 44.80565, ‑96.34708 | yes | no | no | yes | yes | 4 |
| Gary, SD | 44.80689, ‑96.35465 | no | yes | yes | yes | no | 0 |
| Arlington, SD | 44.41566, ‑97.18795 | yes | no | yes | no | yes | 4 |
| Arlington, SD | 44.42644, ‑97.25077 | no | yes | yes | yes | no | 0 |
| Lake Norden, SD | 44.58976, ‑97.08649 | yes | yes | yes | no | yes | 3 |
| Lake Norden, SD | 44.55.6839, ‑97.243820 | no | yes | yes | yes | no | 0 |