

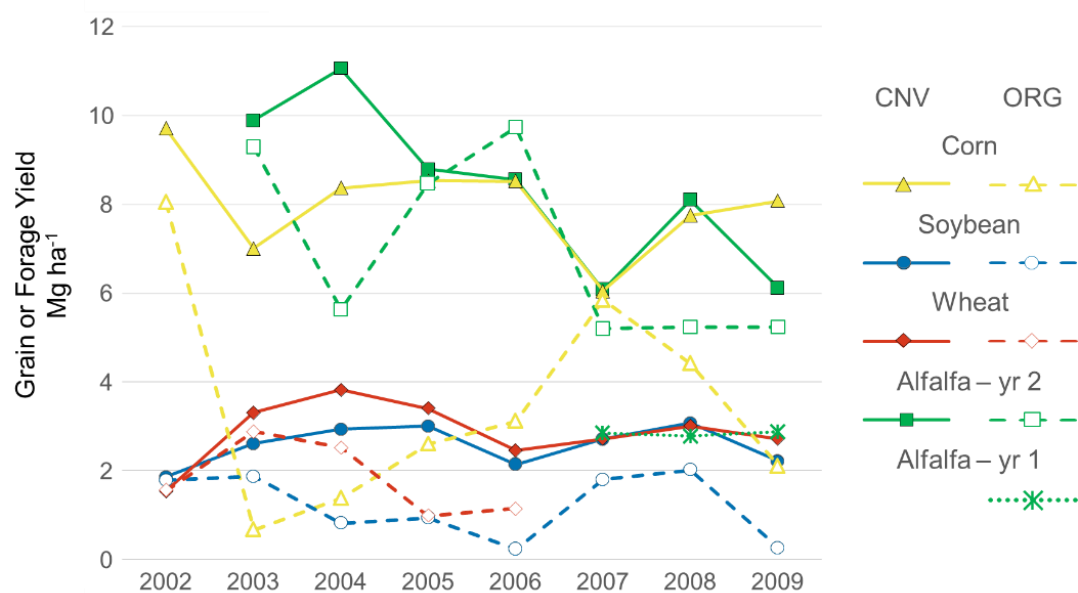


Figure S1. Average annual corn, soybean and wheat grain and alfalfa forage yields (Mg ha⁻¹) harvested from conventional (CNV) and organic (ORG) management systems, over all entry points from 2002 to 2009. Note that after 2006 in the ORG, wheat was removed from the rotation, and alfalfa was harvested in both the first year (yr 1) and second year (yr 2) of growth. (These are not corn yield equivalents, but actual yields.)

Table S1. Crop grain, vegetative shoot and root biomass N concentration (g kg⁻¹) for corn, soybean, wheat and alfalfa in conventional (CNV) and organic (ORG) management systems sampled from 2004 through 2007.

		Corn		Soybean		Wheat		Alfalfa	
		CNV	ORG	CNV	ORG	CNV	ORG	CNV	ORG
N concentration		g kg ⁻¹							
Grain	avg.	11.0 b†	14.2 a	58.5 b	63.6 a	27.5 a	25.2 b	--	--
Shoot	avg.	5.3 b	7.7 a	8.4	9.1	9.0 a	7.3 b	31.0	30.8
Root	avg.	14.2	15.1	24.5	21.5	17.0	14.8	22.2	18.1
C:N ratio shoot		78	63	64	55	44	50	14	16
C:N ratio root		31	43	34	41	38	21	62	23

† Lower case letters within a row and within a crop indicate significant differences between CNV and ORG.

Table S2. Yearly and cumulative sum of total residue-N inputs (kg N ha⁻¹) by entry points within conventional (CNV) and organic (ORG) management systems from 2002 to 2006 and 2002 to 2009.

System	2002	2003	2004	2005	2006	2007	2008	2009	2002 to 2006		2002 to 2009	
Entry Point									Alfalfa	All	Legume	All
kg N ha ⁻¹												
CNV												
EP1	65	<u>28†</u>	44	<u>37</u>	43	<u>44</u>	40	<u>56</u>	37	261	165	357
EP2	<u>20</u>	67	<u>47</u>	35	<u>25</u>	73	<u>92</u>	54	47	267	184	413
EP3	31	<u>90</u>	60	<u>27</u>	28	<u>101</u>	93	<u>24</u>	90	339	242	456
EP4	<u>65</u>	47	<u>19</u>	41	<u>48</u>	67	<u>48</u>	55	113	286	180	389
Avg.	45	58	43	35	36	71	68	47	72	288	193	404
ORG												
EP1	147	<u>53</u>	27	<u>85</u>	66	<u>36</u>	<u>39</u>	<u>60</u>	85	414	273	513
EP2	<u>51</u>	35	<u>77</u>	28	<u>14</u>	<u>83</u>	<u>69</u>	39	77	288	294	396
EP3	19	<u>106</u>	55	<u>16</u>	17	<u>62</u>	<u>122</u>	4	106	275	306	401
EP4	<u>76</u>	12	<u>15</u>	14	<u>49</u>	84	<u>45</u>	<u>78</u>	125	250	263	372
Avg.	73	52	43	36	36	66	69	45	98	307	284	421

† An underlined value indicates soybean residue-N, a double underlined value indicates alfalfa residue-N.