TABLE 1 Benefits described by farmers of raising pastured poultry[15]

BENEFIT	PERCENTAGE OF FARMERS CITING THIS BENEFIT
Soil fertility	61%
Marketing	44%
Production of quality food	44%
Intrinsic value of animals	39%
Better crop and/or pasture growth	28%
Profitability	28%
On-farm diversity	22%
Weed control	17%
Feels better for the environment	17%
Pest control	17%
Education	11%
Soil tillage	11%
Lifestyle	6%

TABLE 2 Challenges described by farmers to raising pastured poultry[15]

CHALLENGES	PERCENTAGE OF FARMERS CITING THIS CHALLENGE
Predators	44%
Cost of feed	22%
Too much work/ can't take vacations	17%
Cost of organic feed	17%
Not profitable	11%
Cost of labor	11%
Food safety concerns	11%
Handling large quantities of feed	11%
Regulations	11%
Pasture won't grow	11%
Lack of background	11%
Infrastructure	11%
Cost of insurance	6%
Sales and Marketing	6%
Weather/climate	6%
Disease	6%
Lack of local breeders	6%

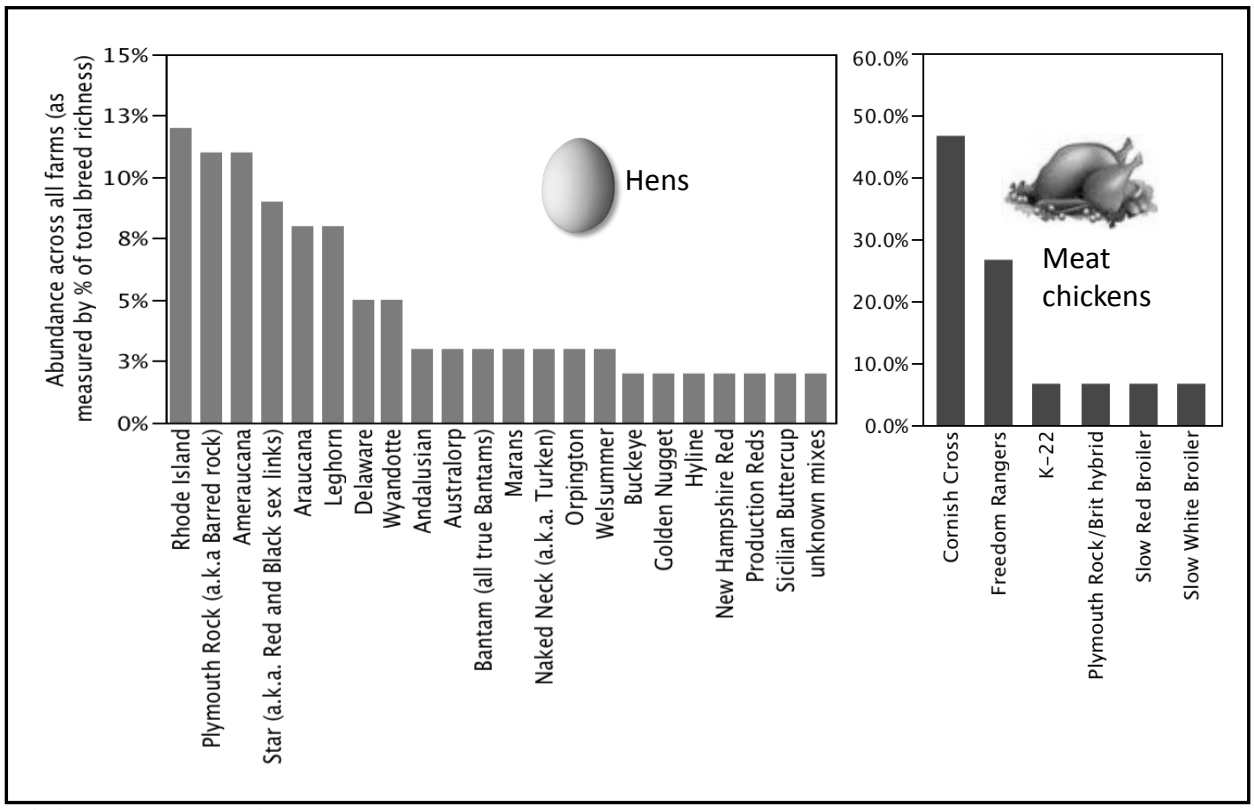

FIG.1 Breed diversity for hens and meat chickens

TABLE 3 Overview table showing which parameters were changed at each farm relative to the control

PARAMETER	FARM A (ROTATIONAL, HENS FOR 2 YEARS)	FARM B (ORCHARD, MEAT CHICKENS FOR 7 YEARS)
pH	+	-
total carbon	0	+
total nitrogen	+	+
ammonium	+	+
nitrate	0	+
exchangeable potassium	0	+
organic matter	+	+
cation exchange capacity	0	+
electrical conductivity	+	+
phosphorus	0	+

TABLE 4 Farm A soil quality results for the 0-15 cm depth except where indicated

Parameter	Days since birds removed	Mean PPAS	Mean control	df	t-stat.	p-value	dir.
pH	0	6.90 (0.09)	6.55 (0.09)	5.98	2.78	0.0320*	+
	98	7.18 (0.05)	6.88 (0.09)	4.72	3.06	0.0302*	+
	181	7.03 (0.05)	6.85 (0.05)	5.99	2.53	0.0500*	+
	384	7.25 (0.12)	7.30 (0.16)	5.57	0.25	0.8096	0
Total C (g kg^{-1})	0	47.50 (1.28)	47.24 (1.23)	5.99	0.15	0.8889	0
Total N (g kg^{-1})	0	4.13 (0.04)	3.96 (0.04)	5.89	3.01	0.0241*	+
	441	4.16 (0.04)	4.04 (0.06)	4.95	1.58	0.1750	0
NH_4^+-N (mg kg^{-1})	0	3.30 (1.20)	2.29 (0.41)	3.68	0.80	0.4713	0
	51	2.28 (0.61)	1.41 (0.15)	3.39	1.39	0.2500	0
	98	3.87 (0.35)	2.49 (0.24)	5.29	3.29	0.0200*	+
	147	2.20 (0.09)	2.27 (0.41)	3.23	0.15	0.8894	0
NH_4^+-N (mg kg^{-1})	0	3.40 (0.78)	2.23 (0.21)	3.81	1.36	0.2500	0
(15-30 cm)	51	2.38 (0.55)	0.90 (0.11)	4.85	3.50	0.0182*	+
	98	4.60 (1.08)	3.47 (1.47)	4.83	1.04	0.3478	0
NO_3^-N (mg kg^{-1})	0	32.00 (7.81)	15.55 (1.60)	3.97	2.36	0.0778	0
NO_3^--N (mg kg^{-1})	0	26.91 (9.70)	15.67 (1.96)	3.16	0.04	0.9674	0
(15-30 cm)	51	40.60 (6.69)	20.74 (2.21)	5.11	3.23	0.0211*	+
	98	11.58 (1.23)	24.20 (0.99)	3.85	6.50	0.0033*	-
	147	32.37 (5.27)	39.89 (6.26)	5.99	0.83	0.4385	0
Olsen P (mg kg^{-1})	0	29.90 (3.63)	24.25 (8.08)	4.21	1.02	0.3617	0
Ex. K (mg kg^{-1})	0	552.25 (22.09)	561.53 (21.95)	6.00	0.30	0.7759	0
Organic matter (g kg^{-1})	0	62.50 (0.87)	58.50 (0.96)	5.94	3.10	0.0214*	+
	98	62.00 (0.58)	63.00 (1.41)	3.97	0.65	0.5487	0
Cation exchange capacity (cmol kg^{-1})	0	25.10 (0.48)	26.15 (0.42)	5.91	1.65	0.1512	0
Electrical conductivity (dS/m)	0	0.72 (0.03)	0.50 (0.05)	4.87	8.57	0.0004*	+
	98	0.53 (0.04)	0.52 (0.06)	4.79	0.43	0.6885	0

Figures in parentheses are standard errors.
Results are shown from time zero until the sampling date after which all differences were neutral.
'dir.' indicates direction of change for significant results of PPAS relative to the control.

TABLE 5 Farm B soil quality results

Parameter	Soil depth (cm)	Mean PPAS	Mean control	df	t-stat.	p-value	dir.
pH	0-15	6.99 (0.06)	7.36 (0.05)	27.59	4.96	<0.0001*	-
	15-30	7.10 (0.06)	7.43 (0.05)	27.66	4.48	0.0001*	-
Total C (g kg^{-1})	0-15	16.07 (0.90)	11.26 (0.25)	7.48	5.35	0.0009*	+
	15-30	22.7 (6.73)	7.86 (0.33)	6.28	3.22	0.0169	+
Total N (g kg^{-1})	0-15	1.54 (0.10)	1.05 (0.00)	6.01	5.06	0.0023*	+
	15-30	1.96 (0.52)	0.76 (0.03)	6.31	3.24	0.0164*	+
NH_4^+-N (mg kg^{-1})	0-15	4.97 (1.48)	1.24 (0.17)	51.76	4.32	<0.0001*	+
	15-30	2.65 (0.57)	0.86 (0.16)	52.98	4.25	<0.0001*	+
NO_3^--N (mg kg^{-1})	0-15	18.70 (3.04)	12.69 (2.70)	60.47	2.27	0.0267*	+
	15-30	15.14 (2.18)	9.73 (1.68)	58.36	2.40	0.0198*	+
Olsen P (mg kg^{-1})	0-15	60.33 (5.14)	25.03 (2.38)	28.98	6.91	<0.0001*	+
	15-30	44.72 (4.40)	13.81 (0.99)	28.33	10.11	<0.0001*	+
Ex. K (mg kg^{-1})	0-15	542.17 (17.21)	311.57 (12.57)	26.00	10.82	<0.0001*	+
	15-30	391.5 (28.4)	224.53 (11.37)	23.98	6.13	<0.0001*	+
Organic matter (g kg^{-1})	0-15	28.60 (1.14)	22.63 (1.02)	28.42	3.90	0.0003*	+
	15-30	22.53 (1.65)	19.44 (1.59)	28.22	1.70	0.0995	0
Cation exchange capacity (cmol kg^{-1})	0-15	18.39 (0.22)	16.08 (0.50)	20.54	4.27	0.0004*	+
	15-30	17.71 (0.62)	15.63 (0.34)	21.78	2.94	0.0076*	+
Electrical conductivity (dS/m)	0-15	0.52 (0.04)	0.35 (0.02)	9.95	3.75	0.0038*	+

Figures in parentheses are standard errors.
'dir.' indicates direction of change for significant results of PPAS relative to the control.

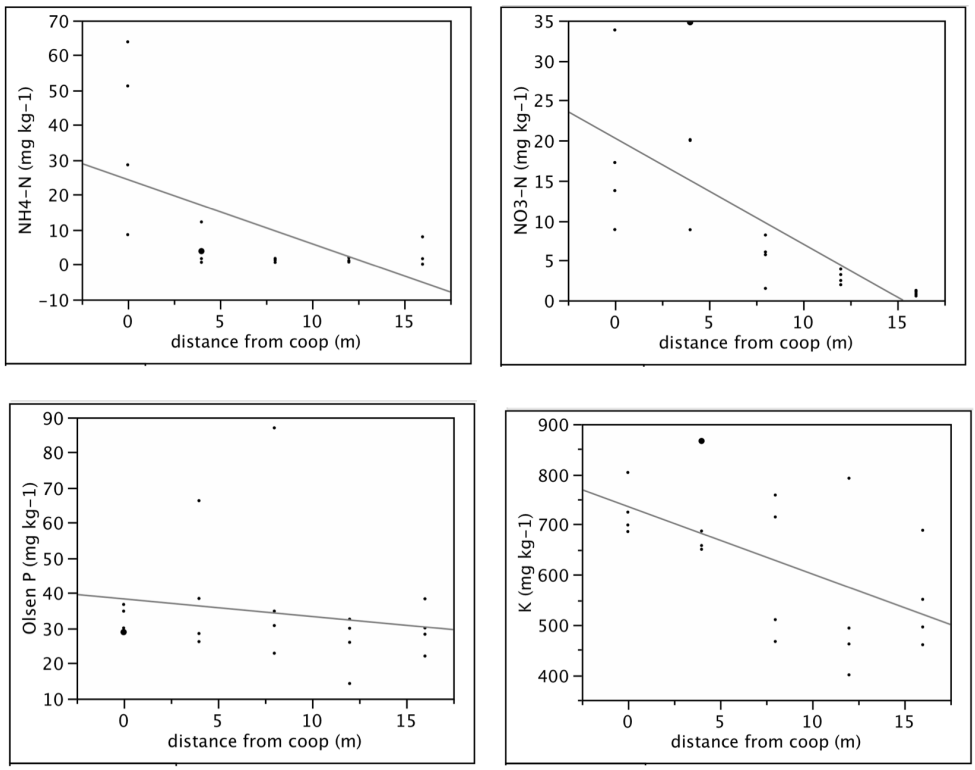

FIG.2: Ammonium, nitrate, phosphorus, and potassium were all concentrated close to the coop

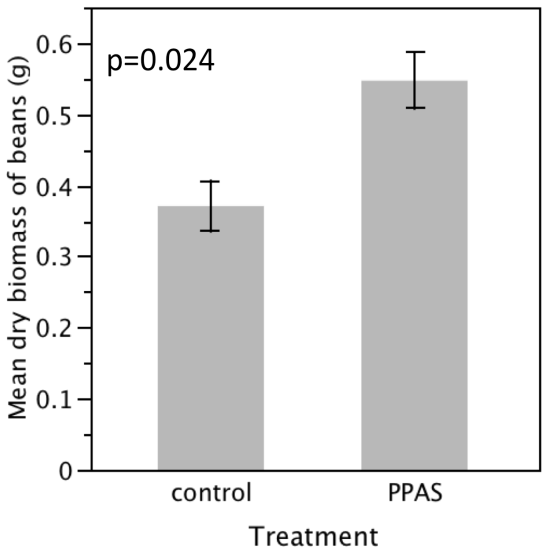

FIG.3 Biomass (grams/plant) of beans by treatment with standard errors

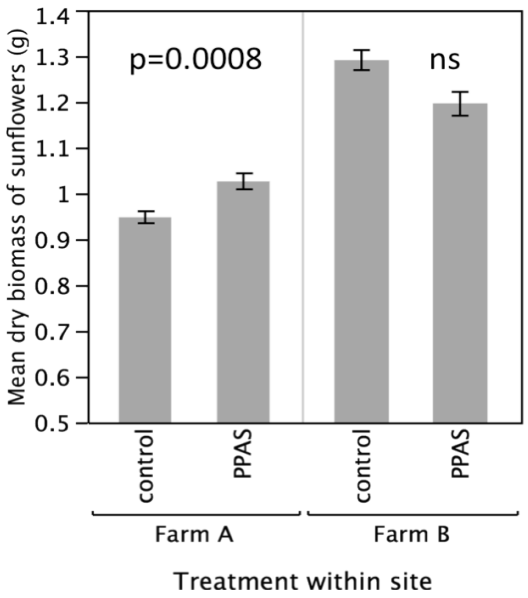

FIG.4 Biomass of sunflowers (grams/plant) by treatment within site with standard errors

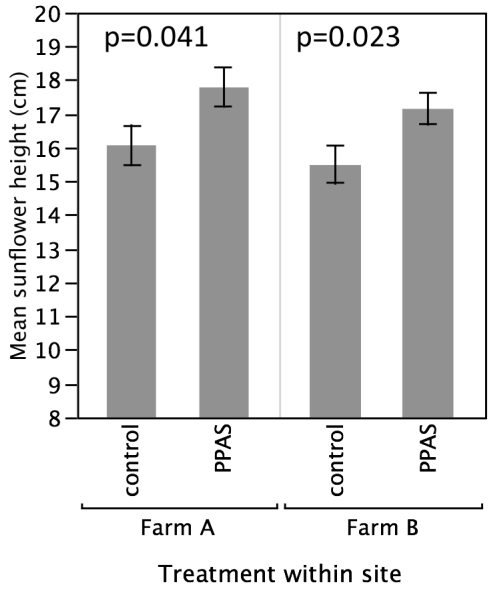

FIG.5 Height of sunflowers (cm/plant) by treatment within site with standard errors

TABLE 6 Soil borne pathogen incidence in soil samples

Treatment	*O157* & *Salmonella* spp. soil weight (g)	*Campylobacter* spp. soil weight (g)	O157	*Salmonella* spp.	*Campylobacter* spp.
PCS	10.09	10.12	-	-	-
PCS	10.06	10.01	-	-	-
PCS	10.02	10.38	-	-	-
PCS	10.06	11.00	-	-	-
MCT	10.14	11.19	-	+	-
MCT	10.00	10.28	-	+	-
MCT	10.04	10.06	-	-	-
MCT	10.22	10.52	-	-	-
20D	10.09	10.26	-	-	-
20D	10.17	10.41	-	-	-
20D	10.30	10.05	-	+	-
20D	10.15	10.17	-	+	-
365D	10.05	10.30	-	-	-
365D	10.21	10.36	-	-	-
365D	10.21	10.82	-	+	-
365D	10.23	10.00	-	+	-