

Appendix III - Data Listing
Table 7. Moisture, protein & fat analysis of breast and thigh meat
(Monsanto Study 05-01-50-13, CQR Study MN-05-2)

Trt #	Block	Treatment	Gender	Pen #	Breast Moisture (g/100g)	Breast Protein (g/100g)	Breast Fat (g/100g)	Thigh Moisture (g/100g)	Thigh Protein (g/100g)	Thigh Fat (g/100g)
1 1		ASGROW RX690	M	100	75.81	23.44	0.73	77.11	21.47	1.86
			F	103	75.21	23.26	1.11	76.77	21.35	1.88
1 2		ASGROW RX690	F	132	75.47	23.11	1.18	76.69	21.96	2.60
			M	141	74.91	24.42	1.39	76.58	21.81	1.76
1 3		ASGROW RX690	F	159	75.30	23.77	0.50	76.46	22.11	1.91
			M	162	75.40	23.50	1.04	77.32	20.33	2.84
1 4		ASGROW RX690	M	152	74.93	24.18	0.94	76.43	22.66	1.19
			F	156	74.72	24.49	0.79	77.26	21.07	1.48
1 5		ASGROW RX690	M	185	75.25	23.93	1.14	76.47	21.00	1.62
			F	190	75.03	23.50	0.57	77.24	21.19	1.42
2 1		DKC60-15	F	104	75.16	23.89	0.88	76.96	21.33	1.70
			M	110	75.81	23.30	0.70	77.01	20.47	1.70
2 2		DKC60-15	M	133	75.50	23.04	1.07	76.88	19.70	1.64
			F	138	75.46	23.61	0.47	77.23	21.27	1.59
2 3		DKC60-15	M	128	74.95	24.03	1.03	76.69	22.06	0.83
			F	130	75.60	23.47	0.27	76.68	21.34	1.61
2 4		DKC60-15	M	151	75.46	23.81	0.56	76.91	21.26	1.78
			F	153	75.38	23.13	0.85	76.73	21.89	1.49
2 5		DKC60-15	M	181	75.48	23.64	0.76	76.35	21.39	2.42
			F	189	75.09	23.63	0.52	76.53	21.05	2.89
3 1		MON 89034	M	102	75.62	22.63	1.67	77.12	21.48	1.34
			F	105	74.55	23.44	1.10	76.59	20.39	2.36
3 2		MON 89034	F	131	75.20	23.84	0.56	77.57	20.84	1.35
			M	137	75.01	24.02	1.39	76.09	21.13	3.56
3 3		MON 89034	F	127	75.05	23.88	0.63	76.74	21.98	1.63
			M	160	75.35	23.86	0.86	76.42	22.57	2.42
3 4		MON 89034	M	149	74.12	24.21	2.07	75.82	22.16	3.55
			F	155	75.16	23.42	0.88	76.41	20.20	2.24
3 5		MON 89034	F	180	75.27	23.57	0.36	77.57	20.63	1.83
			M	183	74.08	25.17	0.72	76.40	21.07	1.43
4 1		DKC57-01	M	106	74.60	24.53	1.21	76.48	22.04	1.01
			F	109	75.15	23.02	0.61	76.23	21.56	1.42

Appendix III - Data Listing
Table 7. (Cont.) Moisture, protein & fat analysis of breast and thigh meat
(Monsanto Study 05-01-50-13, CQR Study MN-05-2)

Trt #	Block	Treatment	Gender	Pen #	Breast Moisture (g/100g)	Breast Protein (g/100g)	Breast Fat (g/100g)	Thigh Moisture (g/100g)	Thigh Protein (g/100g)	Thigh Fat (g/100g)
4	2	DKC57-01	F	134	74.55	24.20	0.55	76.14	21.70	2.80
			M	135	75.16	23.18	0.87	76.17	22.14	0.94
4	3	DKC57-01	F	129	75.29	23.77	0.48	77.15	20.38	0.85
			M	163	74.52	24.43	0.96	76.21	21.94	1.77
4	4	DKC57-01	F	148	75.48	23.67	0.63	76.72	21.94	1.69
			M	154	74.02	23.66	1.39	76.25	22.33	1.08
4	5	DKC57-01	F	182	74.98	24.00	0.58	76.46	22.13	1.44
			M	188	74.90	24.29	1.10	76.81	20.98	1.39
6	1	ASGROW RX772	M	99	74.57	24.21	1.30	76.31	22.09	2.63
			F	107	75.53	23.40	0.50	76.80	22.10	0.93
6	2	ASGROW RX772	M	136	74.91	24.13	1.11	77.10	21.66	1.90
			F	140	75.12	23.85	0.94	75.98	22.92	2.58
6	3	ASGROW RX772	F	126	75.30	22.89	0.79	77.07	21.45	1.41
			M	161	75.43	23.35	0.76	77.22	20.43	1.65
6	4	ASGROW RX772	F	147	74.99	24.09	0.60	76.88	21.62	1.62
			M	168	74.80	24.43	0.82	75.93	22.22	1.99
6	5	ASGROW RX772	M	184	76.26	22.48	1.25	76.85	21.73	1.25
			F	187	75.20	24.05	0.78	76.22	22.61	1.77
8	1	13250.23	F	101	75.23	23.75	0.47	77.38	21.84	1.20
			M	108	74.77	23.29	1.29	75.91	20.75	2.29
8	2	13250.23	F	139	75.44	23.28	0.68	76.41	20.99	2.34
			M	142	76.88	22.26	0.86	77.32	21.01	3.11
8	3	13250.23	M	125	75.21	23.83	0.98	76.81	21.75	1.86
			F	164	75.26	23.69	0.66	76.43	21.63	1.90
8	4	13250.23	M	150	74.86	24.13	1.05	76.57	21.77	1.58
			F	157	75.38	23.55	1.00	76.29	21.73	1.99
8	5	13250.23	M	179	75.41	23.73	0.69	76.66	21.99	1.35
			F	186	74.91	23.86	1.09	76.11	21.39	1.79

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APPENDIX IV

Statistical Report

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Statistical Report

CQR Project No. MN-05-2

Monsanto Study No. 05-01-50-13

Comparison of Broiler Performance and Carcass Parameters When
Fed Diets Containing MON 89034, Control or Commercial Corn

1. DATA

Equal numbers of male and female chicks were fed one of 6 diets treatments, listed in Table A.1. These diets were statistically compared with respect to the 28 analysis variables listed in Table A.2. The raw data from this study were supplied by CQR in the form of an Excel file with several spreadsheets (filename: "MN-05-2 Weight performance and processing STATS.xls"). In order to read the data into SAS, the formatting in this excel file was removed and a modified file was saved as "MN-05-2 Weight performance and processing STATS modified.xls", then the data were imported and organized using SAS 9.1 for statistical analysis.

2. STATISTICAL ANALYSES

Pens were set up as a randomized complete block experimental design with 6 diets (treatments) in each of 5 replicated blocks of pens. Each block contained 12 pens (one for each diet and sex combination), with 10 birds per pen for a total of 600 birds (300 males and 300 females). The GLM and Mixed procedures in Release 9.1 of the Statistical Analysis System (SAS[®]) were used in analyzing data.

Each measurement was statistically analyzed by two different procedures. The first method was a two-factor analysis of variance under a randomized complete block structure. The two factors were diet and gender. The main effects of diet and gender along with the diet-by-gender interaction were tested and noted. If the interaction was not significant ($p\text{-value} \geq 0.15$) then the comparison of the diets was done using the main effect for diets, i.e., diet means were averaged over gender. If the interaction was significant then the diet comparisons were done separately for each gender. Mean separation procedures were performed using the protected LSD method in SAS. The statistical model is as follows:

$$y_{ijk} = \mu + \tau_i + \beta_j + (\tau\beta)_{ij} + \gamma_k + \varepsilon_{ijk} \quad \text{model (1)}$$

where, μ is the overall mean

τ_i is the effect for the i th diet, $i = 1, \dots, 6$

β_j is the effect of j th gender, $j = 1, 2$

$(\tau\beta)_{ij}$ is the interaction between the i th diet and the j th gender

γ_k is the effect of the k th block, $k = 1, \dots, 5$

y_{ijk} is the measured response for the i th diet and j th gender in the k th block
 ε_{ijk} is the random error associated with the measurement for the i th diet and j th gender in the k th block

In addition to the tables, the results of these analyses (mean and least significant difference) for Bird Weight Day42, Average Feed Intake, and Adjusted Feed Conversion were graphically summarized in Figures 1-3. Figures 4-7 also showed summary statistics (mean and standard error) for these three variables and Percent Chill Weight.

The additional analysis compared MON 89034 with the population, of which the control and four commercial diets (five diets in total) were considered as a sample. Analyses were averaged over gender unless there was significant diet-by-gender interaction, in which case analyses were broken out by gender and included in the table. The statistical model is as follows:

$$y_{ijkl} = \mu + \delta_i + \tau_j(\delta_i) + \beta_k + (\delta\beta)_{ik} + \tau_j(\delta_i)*\beta_k + \gamma_l + \varepsilon_{ijkl} \quad \text{model (2)}$$

where

μ is the overall mean
 δ_i is the effect of i th diet type (test or commercial), $i = 1, 2$
 $\tau_j(\delta_i)$ is the effect of j th diet within the i th diet type
 β_k is the effect of the k th gender
 $(\delta\beta)_{ik}$ is the interaction between the i th diet type and the k th gender
 $\tau_j(\delta_i)*\beta_k$ is the interaction between j th diet within the i th diet type and k th gender
 γ_l is the effect of the l th block
 y_{ijkl} is the measured response for the j th diet, within the i th diet type, and k th gender in the l th block
 ε_{ijkl} is the random error associated with the measurement for the j th diet, within the i th diet type, and k th gender in the l th block

3. RESULTS/CONCLUSIONS

Treatment means and results of statistical comparisons of MON 89034, control and commercial corn diets (Table A.1) are summarized in Tables 1-28 for each of the 28 analysis variables listed in Table A.2. Following the analysis plan for Model (1), the p -value for the diet*sex interaction term was checked for each of the 28 analysis variables. Bird Weight Day 0 and Pen Weight Day 0 were the only analysis variables for which the interaction term was significant (p -value < 0.15), so the results for these two variables were summarized overall and by sex in Tables 1 and 2, respectively.

The p -values for the diet effect are found in Tables 1-28. The following summarizes the analyses of those variables for which there were significant differences between diets (p -value < 0.05), or a significant diet*sex interaction. Means with the same letter in the tables are not significantly different from each other.

- **Bird Weight Day 0, g/bird (Table 1):** There was significant Diet*Sex interaction (p-value=0.1207), so the data were analyzed separately for each sex. There were no significant differences between diets for either males or females (p-value = 0.7540 and 0.0571, respectively). Note that the p-value from the mixed model [model (2)] comparing differences between MON 89034 and the control and commercial diets was not significant for males or females (p-value=0.9594 and 0.7000, respectively).
- **Pen Weight Day 0, kg/pen (Table 2):** There was significant Diet*Sex interaction (p-value=0.1207), so the data were analyzed separately for each sex. There were no significant differences between diets for either males or females (p-value = 0.7540 and 0.0571, respectively). Note that the p-value from the mixed model [model (2)] comparing differences between MON 89034 and the control and commercial diets was not significant for males or females (p-value=0.9594 and 0.7000, respectively).
- **Adjusted Feed Conversion (adjusted for R/M birds) (Table 9):** There was no significant Diet*Sex interaction (p-value = 0.8014) so the data were analyzed overall combined males and females. There were significant mean differences between diets (p-value=0.0032) with multiple comparisons indicating that the means for MON 89034, ASGROW RX690, DKC60-15 and DKC57-01 were not significantly different than each other, but they were significantly different than 13250.23 and ASGROW RX772. Also, ASGROW RX690 was not significantly different than ASGROW RX772, and ASGROW RX772 was not significantly different than 13250.23. Note that the p-value from the mixed model [model (2)] comparing differences between MON 89034 and the control and commercial diets was not significant (p-value=0.4130).

References

SAS Software Release 9.1 (TS1M3). Copyright (c) 2002-2003 by SAS Institute Inc., Cary, NC, USA

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Table A.1: Diets

Test Articles	1. MON 89034
Control	1. 13250.23
Commercial Controls	1. ASGROW RX690
	2. ASGROW RX772
	3. DKC60-15
	4. DKC57-01

Table A.2: Listing of Variables Statistically Analyzed

1. Bird Weight Day 0, g/bird
2. Pen Weight Day 0, kg/pen
3. Bird Weight Day 42, kg/bird
4. Pen Weight Day 42, kg/pen
5. Average Feed Intake, kg/bird
6. Feed Intake by Pen, kg
7. Feed Conversion (Feed Consumed/ Wt Gain)
8. R/M Weight (Wt of removed and dead birds), kg
9. Adjusted Feed Conversion (adjusted for R/M birds)
10. Average Final Live Body Weight, kg/bird
11. Chill Weight, kg/bird
12. Fat Pad Weight, kg/bird
13. Average Breast Weight, kg/bird
14. Average Wing Weight, kg/bird
15. Average Thigh Weight, kg/bird
16. Average Drum Weight, kg/bird
17. Percent Fat Pad Weight (Fat Pad Wt/ Live Wt x 100)
18. Percent Chill Weight (Chill Wt/ Live Wt x 100)
19. Percent Breast Weight (Breast Wt/ Chill Wt x 100)
20. Percent Wing Weight (Wing Wt/ Chill Wt x 100)
21. Percent Thigh Weight (Thigh Wt/ Chill Wt x 100)
22. Percent Drum Weight (Drum Wt/ Chill Wt x 100)
23. Breast Moisture (g/100 g)
24. Breast Protein (g/100 g)
25. Breast Fat (g/100 g)
26. Thigh Moisture (g/100 g)
27. Thigh Protein (g/100 g)
28. Thigh Fat (g/100g)

Table A.3. List of Figures

- Figure 1. Comparison of Bird Weight Day 42 for broilers fed diets containing MON 89034, Control or Commercial Corn
- Figure 2. Comparison of Average Feed Intake for broilers fed diets containing MON 89034, Control or Commercial Corn
- Figure 3. Comparison of Adjusted Feed Conversion for broilers fed diets containing MON 89034, Control or Commercial Corn
- Figure 4. Summary of Bird Weight Day 42 (males and females combined)
- Figure 5. Summary of Average Feed Intake (males and females combined)
- Figure 6. Summary of Adjusted Feed Conversion (males and females combined)
- Figure 7. Summary of Percent Chill Weight (male and females combined)

Table 1. Bird Weight Day 0, g/bird

	Summary	Overall	Males	Females
ANOVA	p-value, Block	0.9563	0.7208	0.3323
	p-value, Diets	0.6684	0.7540	0.0571
	p-value, Sex	0.8796		
	p-value, Diets*Sex	0.1207		
	LSD 5%	0.891	1.437	1.104
Diets Means	MON 89034	38.817	38.933	38.700
	13250.23	38.733	39.433	38.033
	ASGROW RX690	38.633	38.433	38.833
	ASGROW RX772	39.283	38.700	39.867
	DKC60-15	38.967	38.800	39.133
	DKC57-01	39.150	39.167	39.133
Mixed Model	Control and Commercial*	38.953	38.907	39.000
	MON 89034*	38.817	38.933	38.700
	Mixed Model p-value*	0.7542	0.9594	0.7000
	Mixed Model 5% LSD*	0.972	1.069	2.011

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 2. Pen Weight Day 0, kg/pen

	Summary	Overall	Males	Females
ANOVA	p-value, Block	0.9563	0.7208	0.3323
	p-value, Diets	0.6684	0.7540	0.0571
	p-value, Sex	0.8796	.	.
	p-value, Diets*Sex	0.1207	.	.
	LSD 5%	0.011	0.017	0.013
Diets Means	MON 89034	0.466	0.467	0.464
	13250.23	0.465	0.473	0.456
	ASGROW RX690	0.464	0.461	0.466
	ASGROW RX772	0.471	0.464	0.478
	DKC60-15	0.468	0.466	0.470
	DKC57-01	0.470	0.470	0.470
Mixed Model	Control and Commercial*	0.467	0.467	0.468
	MON 89034*	0.466	0.467	0.464
	Mixed Model p-value*	0.7542	0.9594	0.7000
	Mixed Model 5% LSD*	0.012	0.013	0.024

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 3. Bird Weight Day 42, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.3373
	p-value, Diets	0.7288
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.5256
	LSD 5%	0.096
Diets Means	MON 89034	2.796
	13250.23	2.796
	ASGROW RX690	2.744
	ASGROW RX772	2.809
	DKC60-15	2.775
	DKC57-01	2.810
Mixed Model	Control and Commercial*	2.787
	MON 89034*	2.796
	Mixed Model p-value*	0.7980
	Mixed Model 5% LSD*	0.072

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 4. Pen Weight Day 42, kg/pen

	Summary	Overall
ANOVA	p-value, Block	0.7128
	p-value, Diets	0.6565
	p-value, Sex	0.0001
	p-value, Diets*Sex	0.8431
	LSD 5%	2.533
Diets Means	MON 89034	26.785
	13250.23	25.875
	ASGROW RX690	26.010
	ASGROW RX772	26.050
	DKC60-15	27.460
	DKC57-01	25.465
Mixed Model	Control and Commercial*	26.172
	MON 89034*	26.785
	Mixed Model p-value*	0.5189
	Mixed Model 5% LSD*	1.894

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

Table 5. Average Feed Intake, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.5131
	p-value, Diets	0.0880
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.3529
	LSD 5%	0.245
Diets Means	MON 89034	4.377
	13250.23	4.478
	ASGROW RX690	4.312
	ASGROW RX772	4.475
	DKC60-15	4.364
	DKC57-01	4.320
Mixed Model	Control and Commercial*	4.390
	MON 89034*	4.377
	Mixed Model p-value*	0.8899
	Mixed Model 5% LSD*	0.248

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 6. Feed Intake by Pen, kg

	Summary	Overall
ANOVA	p-value, Block	0.8915
	p-value, Diets	0.5377
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.7782
	LSD 5%	2.503
Diets Means	MON 89034	43.285
	13250.23	43.100
	ASGROW RX690	42.515
	ASGROW RX772	43.650
	DKC60-15	43.525
	DKC57-01	41.520
Mixed Model	Control and Commercial*	42.862
	MON 89034*	43.285
	Mixed Model p-value*	0.6806
	Mixed Model 5% LSD*	2.651

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 7. Feed Conversion (Feed Consumed/ Wt Gain)

	Summary	Overall
ANOVA	p-value, Block	0.3271
	p-value, Diets	0.2527
	p-value, Sex	0.7697
	p-value, Diets*Sex	0.891
	LSD 5%	0.100
Diets Means	MON 89034	1.630
	13250.23	1.710
	ASGROW RX690	1.669
	ASGROW RX772	1.730
	DKC60-15	1.617
	DKC57-01	1.663
Mixed Model	Control and Commercial*	1.678
	MON 89034*	1.650
	Mixed Model p-value*	0.5899
	Mixed Model 5% LSD*	0.134

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 8. R/M Weight (Wt of removed and dead birds), kg

	Summary	Overall
ANOVA	p-value, Block	0.8466
	p-value, Diets	0.5332
	p-value, Sex	0.0032
	p-value, Diets*Sex	0.8446
	LSD 5%	1.278
Diets Means	MON 89034	0.991
	13250.23	1.105
	ASGROW RX690	1.074
	ASGROW RX772	1.450
	DKC60-15	0.259
	DKC57-01	1.271
Mixed Model	Control and Commercial*	1.032
	MON 89034*	0.991
	Mixed Model p-value*	0.9393
	Mixed Model 5% LSD*	1.390

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

Table 9. Adjusted Feed Conversion (adjusted for R/M birds)

	Summary	Overall	
ANOVA	p-value, Block	0.0728	
	p-value, Diets	0.0032	
	p-value, Sex	<.0001	
	p-value, Diets*Sex	0.8014	
	LSD 5%	0.026	
Diets Means	MON 89034	1.593	C
	13250.23	1.636	A
	ASGROW RX690	1.608	BC
	ASGROW RX772	1.625	BA
	DKC60-15	1.598	C
	DKC57-01	1.591	C
Mixed Model	Control and Commercial*	1.612	
	MON 89034*	1.593	
	Mixed Model p-value*	0.4130	
	Mixed Model 5% LSD*	0.057	

Individual diet means with the same letter(s), i.e., A, C, BC, etc., are not statistically different at the 5% level. The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 10. Average Final Live Body Weight, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.3100
	p-value, Diets	0.9120
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.4205
	LSD 5%	0.086
Diets Means	MON 89034	2.752
	13250.23	2.748
	ASGROW RX690	2.713
	ASGROW RX772	2.759
	DKC60-15	2.741
	DKC57-01	2.754
Mixed Model	Control and Commercial*	2.743
	MON 89034*	2.752
	Mixed Model p-value*	0.7723
	Mixed Model 5% LSD*	0.063

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

Table 11. Chill Weight, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.3429
	p-value, Diets	0.8390
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.3377
	LSD 5%	0.966
Diets Means	MON 89034	1.970
	13250.23	1.973
	ASGROW RX690	1.938
	ASGROW RX772	1.977
	DKC60-15	1.968
	DKC57-01	1.977
Mixed Model	Control and Commercial*	1.967
	MON 89034*	1.970
	Mixed Model p-value*	0.8884
	Mixed Model 5% LSD*	0.049

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 12. Fat Pad Weight, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.2584
	p-value, Diets	0.8184
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.7817
	LSD 5%	0.003
Diets Means	MON 89034	0.045
	13250.23	0.045
	ASGROW RX690	0.046
	ASGROW RX772	0.044
	DKC60-15	0.046
	DKC57-01	0.046
Mixed Model	Control and Commercial*	0.045
	MON 89034*	0.045
	Mixed Model p-value*	0.5781
	Mixed Model 5% LSD*	0.003

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 13. Average Breast Weight, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.0334
	p-value, Diets	0.5870
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.2218
	LSD 5%	0.823
Diets Means	MON 89034	0.545
	13250.23	0.548
	ASGROW RX690	0.533
	ASGROW RX772	0.552
	DKC60-15	0.549
	DKC57-01	0.551
Mixed Model	Control and Commercial*	0.547
	MON 89034*	0.545
	Mixed Model p-value*	0.8313
	Mixed Model 5% LSD*	0.017

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 14. Average Wing Weight, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.7079
	p-value, Diets	0.7827
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.7626
	LSD 5%	0.008
Diets Means	MON 89034	0.219
	13250.23	0.221
	ASGROW RX690	0.216
	ASGROW RX772	0.220
	DKC60-15	0.218
	DKC57-01	0.218
Mixed Model	Control and Commercial*	0.219
	MON 89034*	0.219
	Mixed Model p-value*	0.8017
	Mixed Model 5% LSD*	0.006

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 15. Average Thigh Weight, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.6516
	p-value, Diets	0.9354
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.4980
	LSD 5%	0.018
Diets Means	MON 89034	0.352
	13250.23	0.352
	ASGROW RX690	0.352
	ASGROW RX772	0.352
	DKC60-15	0.358
	DKC57-01	0.357
Mixed Model	Control and Commercial*	0.354
	MON 89034*	0.352
	Mixed Model p-value*	0.6535
	Mixed Model 5% LSD*	0.011

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

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Table 16. Average Drum Wt, kg/bird

	Summary	Overall
ANOVA	p-value, Block	0.2706
	p-value, Diets	0.5522
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.4461
	LSD 5%	0.010
Diets Means	MON 89034	0.275
	13250.23	0.276
	ASGROW RX690	0.268
	ASGROW RX772	0.275
	DKC60-15	0.275
	DKC57-01	0.276
Mixed Model	Control and Commercial*	0.274
	MON 89034*	0.275
	Mixed Model p-value*	0.8853
	Mixed Model 5% LSD*	0.010

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 17. Percent Fat Pad Weight (Fat Pad Wt / Live Wt x100)

	Summary	Overall
ANOVA	p-value, Block	0.1291
	p-value, Diets	0.5810
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.9199
	LSD 5%	0.125
Diets Means	MON 89034	1.628
	13250.23	1.652
	ASGROW RX690	1.712
	ASGROW RX772	1.613
	DKC60-15	1.692
	DKC57-01	1.681
Mixed Model	Control and Commercial*	1.670
	MON 89034*	1.628
	Mixed Model p-value*	0.3698
	Mixed Model 5% LSD*	0.093

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 18. Percent Chill Weight (Chill Wt/Live Wt x 100)

	Summary	Overall
ANOVA	p-value, Block	0.3980
	p-value, Diets	0.4454
	p-value, Sex	0.0125
	p-value, Diets*Sex	0.1964
	LSD 5%	0.509
Diets Means	MON 89034	71.591
	13250.23	71.809
	ASGROW RX690	71.337
	ASGROW RX772	71.624
	DKC60-15	71.794
	DKC57-01	71.736
Mixed Model	Control and Commercial*	71.660
	MON 89034*	71.591
	Mixed Model p-value*	0.7636
	Mixed Model 5% LSD*	0.591

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

Table 19. Percent Breast Weight (Breast Wt/ Chill Wt x 100)

	Summary	Overall
ANOVA	p-value, Block	<.0001
	p-value, Diets	0.2010
	p-value, Sex	0.0081
	p-value, Diets*Sex	0.4910
	LSD 5%	0.435
Diets Means	MON 89034	27.654
	13250.23	27.717
	ASGROW RX690	27.422
	ASGROW RX772	27.888
	DKC60-15	27.895
	DKC57-01	27.891
Mixed Model	Control and Commercial*	27.763
	MON 89034*	27.654
	Mixed Model p-value*	0.6540
	Mixed Model 5% LSD*	0.623

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 20. Percent Wing Weight (Wing Wt/ Chill Wt x 100)

	Summary	Overall
ANOVA	p-value, Block	0.0818
	p-value, Diets	0.2686
	p-value, Sex	0.9293
	p-value, Diets*Sex	0.3415
	LSD 5%	0.167
Diets Means	MON 89034	11.145
	13250.23	11.229
	ASGROW RX690	11.181
	ASGROW RX772	11.156
	DKC60-15	11.073
	DKC57-01	11.048
Mixed Model	Control and Commercial*	11.137
	MON 89034*	11.145
	Mixed Model p-value*	0.9339
	Mixed Model 5% LSD*	0.229

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

Table 21. Percent Thigh Weight (Thigh Wt/ Chill Wt x 100)

	Summary	Overall
ANOVA	p-value, Block	0.0090
	p-value, Diets	0.2176
	p-value, Sex	0.0112
	p-value, Diets*Sex	0.9370
	LSD 5%	0.369
Diets Means	MON 89034	17.834
	13250.23	17.832
	ASGROW RX690	18.093
	ASGROW RX772	17.793
	DKC60-15	18.145
	DKC37-01	18.067
Mixed Model	Control and Commercial*	17.986
	MON 89034*	17.834
	Mixed Model p-value*	0.4386
	Mixed Model 5% LSD*	0.491

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

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Table 22. Percent Drum Weight (Drum Wt/ Chill Wt x 100)

	Summary	Overall
ANOVA	p-value, Block	0.0026
	p-value, Diets	0.7352
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.9687
	LSD 5%	0.211
Diets Means	MON 89034	13.935
	13250.23	13.991
	ASGROW RX690	13.838
	ASGROW RX772	13.896
	DKC60-15	13.960
	DKC57-01	13.960
Mixed Model	Control and Commercial*	13.929
	MON 89034*	13.935
	Mixed Model p-value*	0.9376
	Mixed Model 5% LSD*	0.156

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 23. Breast Moisture (g/100 g)

	Summary	Overall
ANOVA	p-value, Block	0.4064
	p-value, Diets	0.0802
	p-value, Sex	0.6783
	p-value, Diets*Sex	0.6320
	LSD 5%	0.412
Diets Means	MON 89034	74.941
	13250.23	75.335
	ASGROW RX690	75.203
	ASGROW RX772	75.211
	DKC60-15	75.389
	DKC57-01	74.865
Mixed Model	Control and Commercial*	75.201
	MON 89034*	74.941
	Mixed Model p-value*	0.3098
	Mixed Model 5% LSD*	0.620

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

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Table 24. Breast Protein (g/100 g)

	Summary	Overall
ANOVA	p-value, Block	0.4007
	p-value, Diets	0.6861
	p-value, Sex	0.3471
	p-value, Diets*Sex	0.8872
	LSD 5%	0.493
Diets Means	MON 89034	23.804
	13250.23	23.537
	ASGROW RX690	23.760
	ASGROW RX772	23.688
	DKC60-15	23.555
	DKC57-01	23.875
Mixed Model	Control and Commercial*	23.683
	MON 89034*	23.804
	Mixed Model p-value*	0.5092
	Mixed Model 5% LSD*	0.365

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

Table 25. Breast Fat (g/100 g)

	Summary	Overall
ANOVA	p-value, Block	0.1505
	p-value, Diets	0.2099
	p-value, Sex	<.0001
	p-value, Diets*Sex	0.3058
	LSD 5%	0.241
Diets Means	MON 89034	1.024
	13250.23	0.877
	ASGROW RX690	0.939
	ASGROW RX772	0.885
	DKC60-15	0.711
	DKC87-01	0.853
	Mixed Model Control and Commercial*	0.853
MON 89034*	1.024	
	Mixed Model p-value*	0.1415
	Mixed Model 5% LSD*	0.260

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

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Table 26. Thigh Moisture (g/100 g)

	Summary	Overall
ANOVA	p-value, Block	0.6873
	p-value, Diets	0.4471
	p-value, Sex	0.3094
	p-value, Diets*Sex	0.4870
	LSD 5%	0.396
Diets Means	MON 89034	76.673
	13250.23	76.589
	ASGROW RX690	76.833
	ASGROW RX772	76.636
	DKC60-15	76.797
	DKC57-01	76.462
Mixed Model	Control and Commercial*	76.663
	MON 89034*	76.673
	Mixed Model p-value*	0.9570
	Mixed Model 5% LSD*	0.465

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

Table 27. Thigh Protein (g/100 g)

	Summary	Overall
ANOVA	p-value, Block	0.7107
	p-value, Diets	0.1511
	p-value, Sex	0.8746
	p-value, Diets*Sex	0.1930
	LSD 5%	0.586
Diets Means	MON 89034	21.245
	13250.23	21.485
	ASGROW RX690	21.495
	ASGROW RX772	21.883
	DKC60-15	21.176
	DKC57-01	21.714
Mixed Model	Control and Commercial*	21.551
	MON 89034*	21.245
	Mixed Model p-value*	0.3549
	Mixed Model 5% LSD*	0.812

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

* Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets

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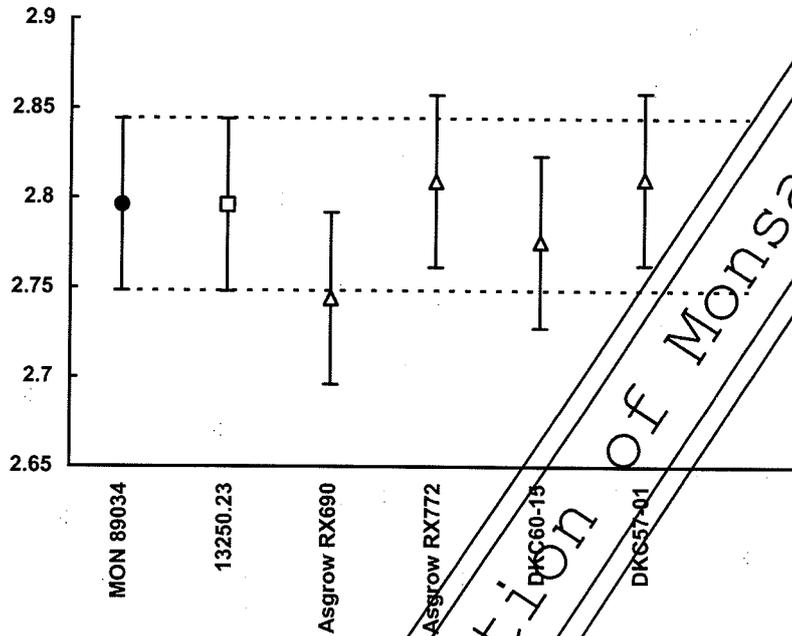
Table 28. Thigh Fat (g/ 100g)

	Summary	Overall
ANOVA	p-value, Block	0.2607
	p-value, Diets	0.1839
	p-value, Sex	0.6666
	p-value, Diets*Sex	0.5517
	LSD 5%	0.545
Diets Means	MON 89034	2.171
	13250.23	1.941
	ASGROW RX690	1.856
	ASGROW RX772	1.773
	DKC60-15	1.765
	DKC57-01	1.439
Mixed Model	Control and Commercial*	1.755
	MON 89034*	2.171
	Mixed Model p-value*	0.1168
	Mixed Model 5% LSD*	0.579

The individual means were computed from the ANOVA model (1) accounting for only variation within diets.

*** Derived from a mixed linear model for comparing MON 89034 to the population of control and commercial diets**

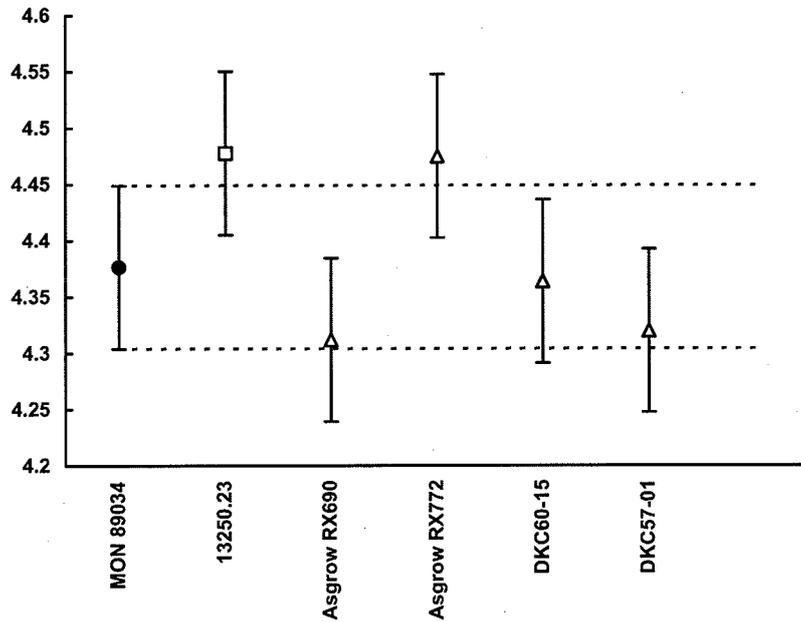
Figure 1. Comparison of Bird Weight Day 42 for broilers fed diets containing MON 89034, Control or Commercial Corn



Average Bird Weight day 42 (kg/bird), for broilers fed each variety. Error bars are \pm one half the 5% Least Significant Difference (LSD). Therefore, if the overall F-test is significant at $P < 0.05$, any two non-overlapping varieties are statistically different at the 5% level of significance.

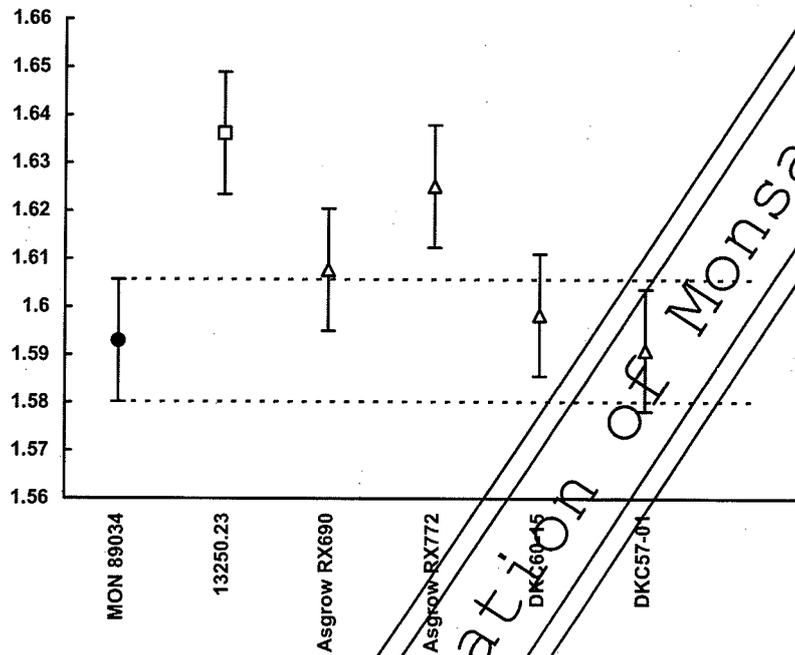
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Figure 2. Comparison of Average Feed Intake for broilers fed diets containing MON 89034, Control or Commercial Corn



Average Feed Intake (kg/bird), day 42, for broilers fed each variety. Error bars are \pm one half the 5% Least Significant Difference (LSD). Therefore, if the overall F-test is significant at $P < 0.05$, any two non-overlapping varieties are statistically different at the 5% level of significance.

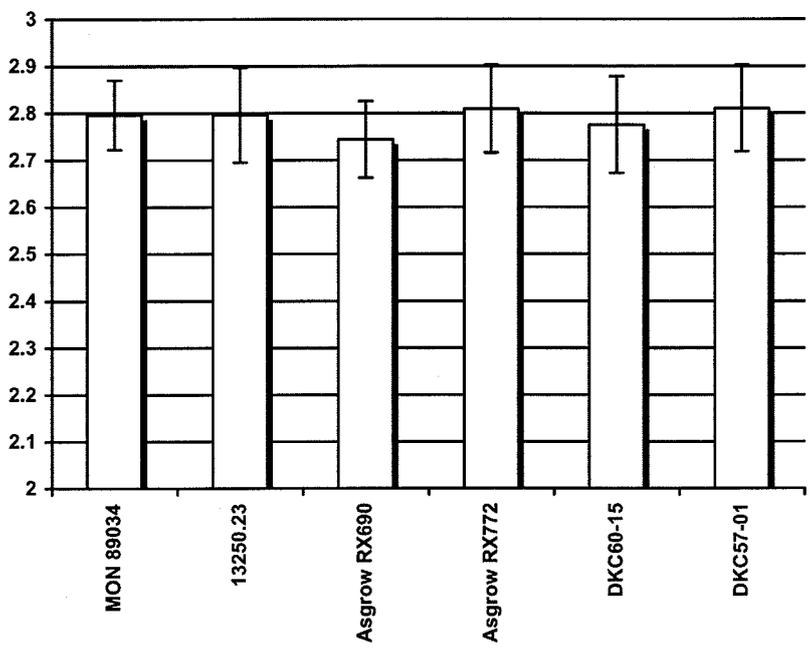
Figure 3. Comparison of Adjusted Feed Conversion for broilers fed diets containing MON 89034, Control or Commercial Corn



Adjusted feed conversion (adjusted for R/M birds), day 42, for broilers fed each variety. Error bars are \pm one half the 5% Least Significant Difference (LSD). Therefore, if the overall F-test is significant at $P < 0.05$, any two non-overlapping varieties are statistically different at the 5% level of significance.

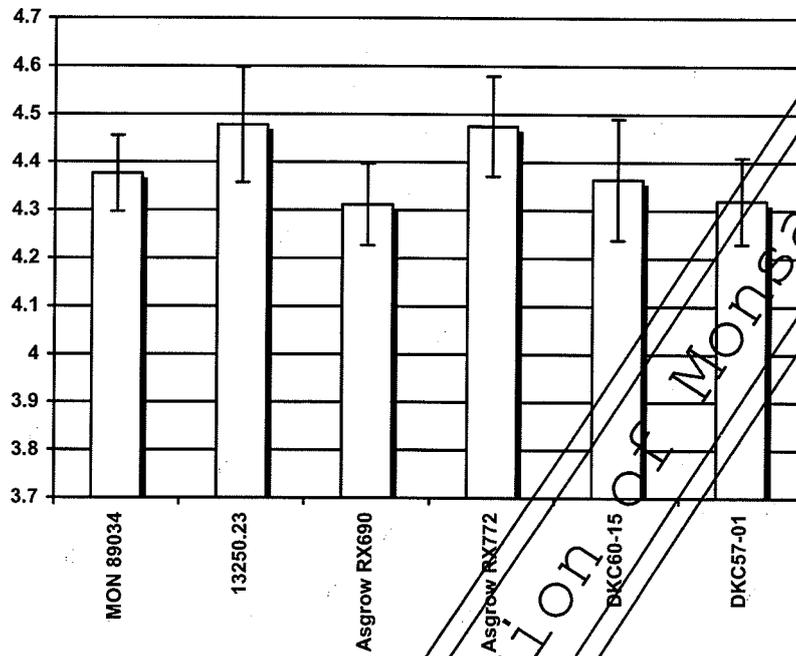
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Figure 4. Summary of Bird Weight Day 42 (males and females combined)



Average Bird Weight day 42 (kg/bird), for broilers fed each variety. Error bars are \pm one standard error of the mean (SEM).

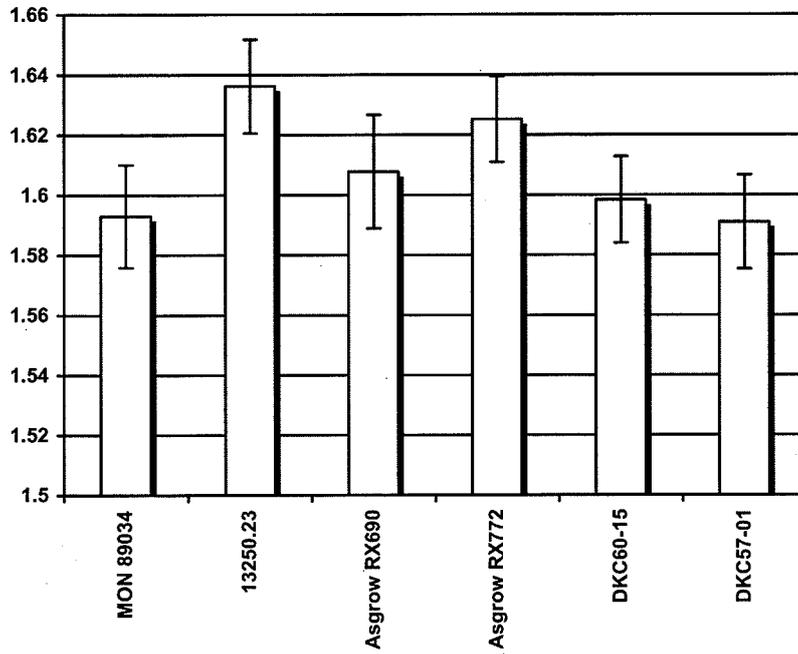
Figure 5. Summary of Average Feed Intake (males and females combined)



Average feed intake (kg/bird), day 42 for broilers fed each variety. Error bars are \pm one standard error of the mean (SEM).

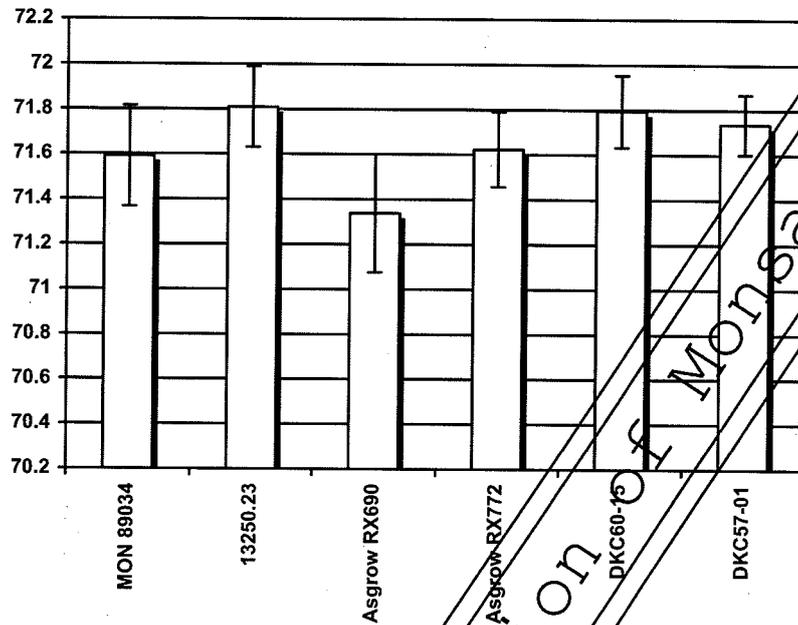
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Figure 6. Summary of Adjusted Feed Conversion (males and females combined)



Adjusted feed conversion (adjusted for R/M birds), day 42, for broilers fed each variety. Error bars are \pm one standard error of the mean (SEM).

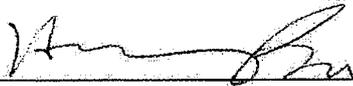
Figure 7. Summary of Percent Chill Weight (male and females combined)



Percent Chill Weight (Chill Wt/Live Wt x 100), for broilers fed each variety. Error bars are \pm one standard error of the mean (SEM).

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