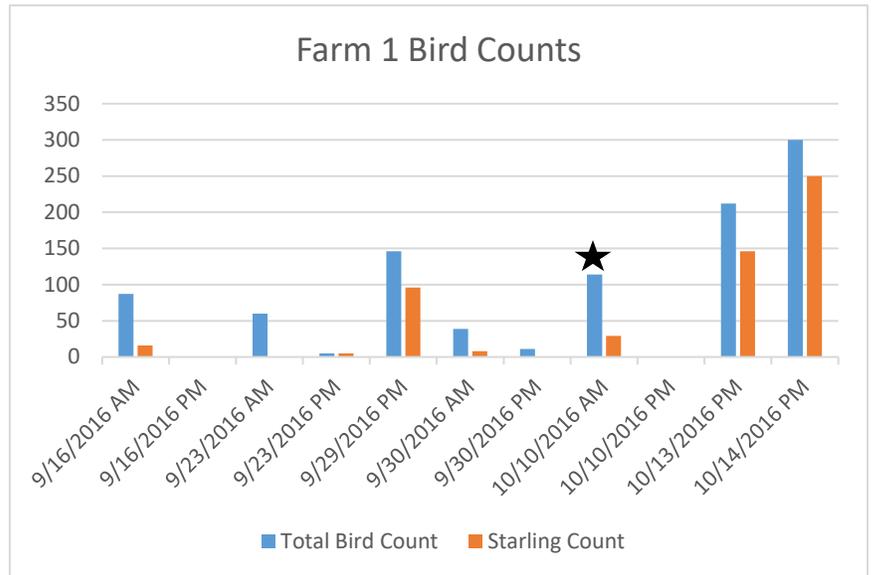


# Bird Activity Report: Farm 1

Date	Total Bird Count	Starling Count
9/16/2016 AM	87	16
9/16/2016 PM	0	0
9/23/2016 AM	60	0
9/23/2016 PM	5	5
9/29/2016 PM	146	96
9/30/2016 AM	39	8
9/30/2016 PM	11	0
10/10/2016 AM	114	29
10/10/2016 PM	0	0
10/13/2016 PM	212	146
10/14/2016 PM	300	250

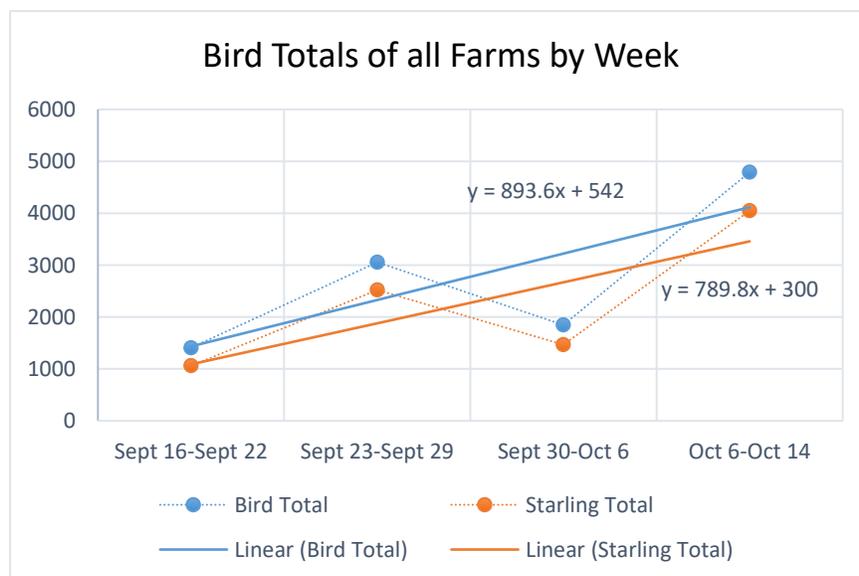


★ indicates that one or more raptors were observed at that time

## Behavior Observations:

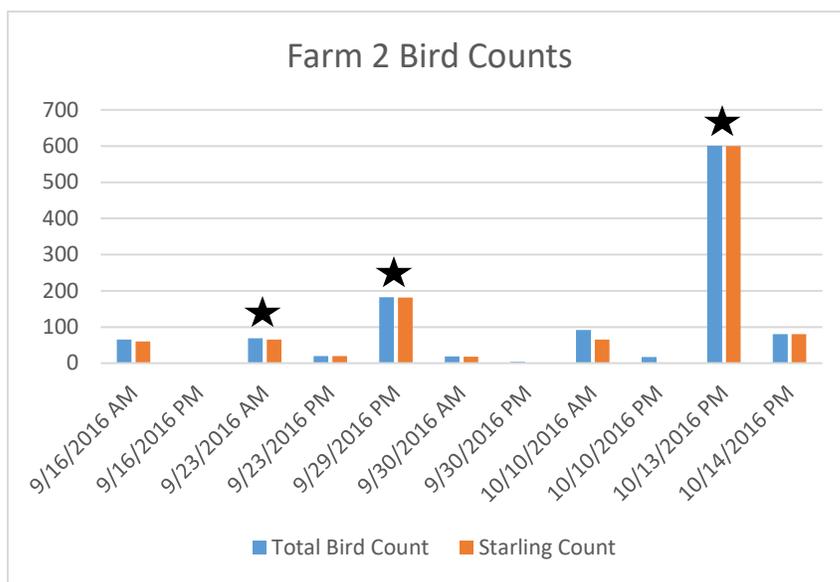
- Noticeably high population of crows, typically near bunker silos
- Crows would also perch on edge of concrete tank
- Starlings flock to the same power pole along road, about 200ft west of the farm
- Both pigeons and starlings would perch under vent at peak of roofs, especially in bad weather
- Bird activity is significantly higher in the early afternoon, no evidence of starling roosting

**Warning: Raptor activity has been observed on your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 2

Date	Total Bird Count	Starling Count
9/16/2016 AM	65	60
9/16/2016 PM	0	0
9/23/2016 AM	69	65
9/23/2016 PM	20	20
9/29/2016 PM	182	181
9/30/2016 AM	19	18
9/30/2016 PM	4	0
10/10/2016 AM	92	65
10/10/2016 PM	17	0
10/13/2016 PM	601	600
10/14/2016 PM	80	80

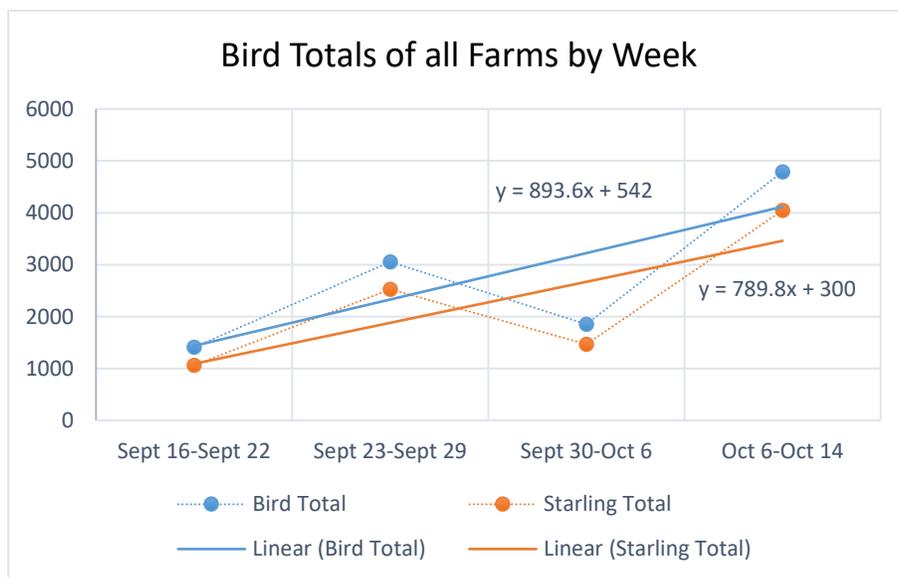


★ indicates that one or more raptors were observed at that time

### Behavior Observations:

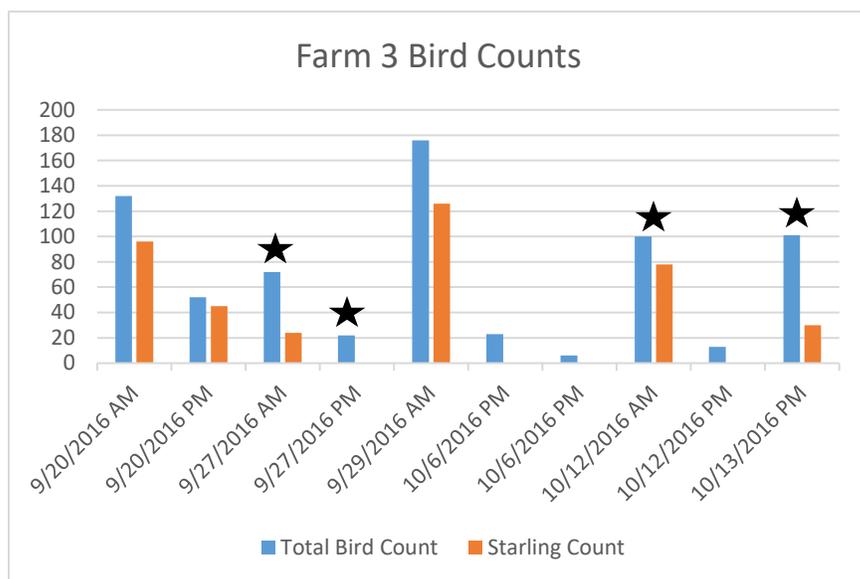
- Low startling activity in barns and feed lane
- High starling activity on power lines west of barns and in cedar grove south of farm
- Starlings occasionally fly from power lines to south end of barn and feed lane
- Bird activity is generally limited to late morning and early afternoon
- Intermittent raptor activity: Cooper's hawk and Merlin seen once each

**Warning: Raptor activity has been observed on your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 3

Date	Total Bird Count	Starling Count
9/20/2016 AM	132	96
9/20/2016 PM	52	45
9/27/2016 AM	72	24
9/27/2016 PM	22	0
9/29/2016 AM	176	126
10/6/2016 PM	23	0
10/6/2016 PM	6	0
10/12/2016 AM	100	78
10/12/2016 PM	13	0
10/13/2016 PM	101	30

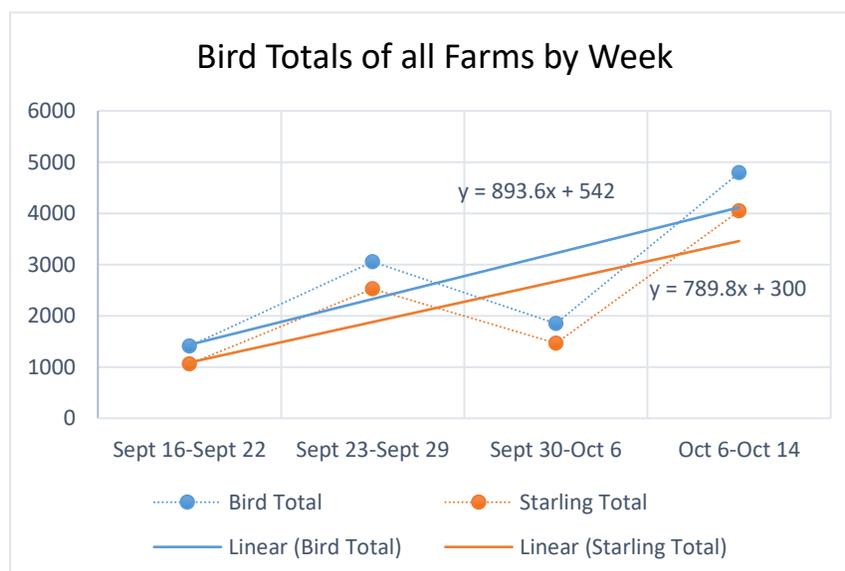


★ indicates that one or more raptors were observed at that time

### Behavior Observations:

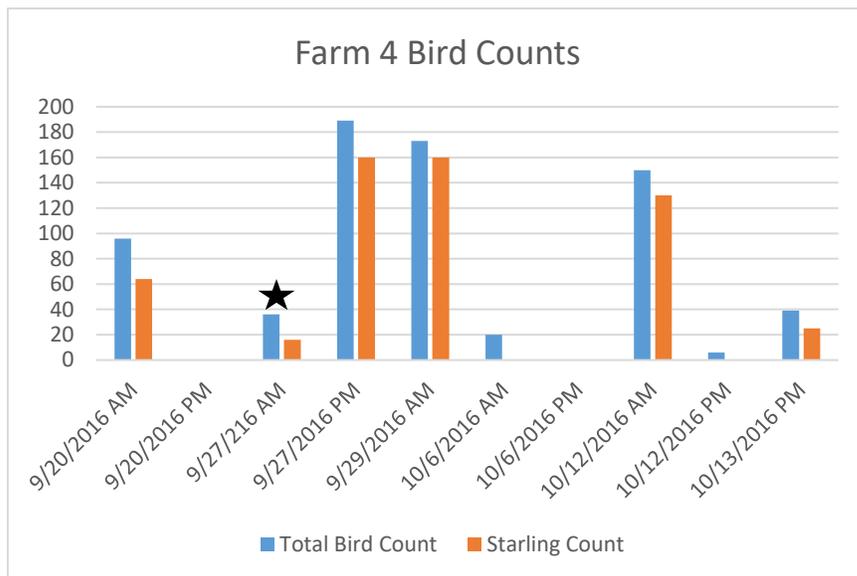
- Very little starling activity in barns, most starlings were observed on power lines on east side of property near manure ponds
- When high bird activity was observed, they were located near the feed storage at the northwest side of the farm
- Pigeons were more common inside barn
- A uniquely high incidence of raptor activity was observed around the property; 2 Cooper's hawks likely nest nearby, 1 red-tailed hawk was seen, and 1 juvenile golden eagle

**Warning: Raptor activity has been observed on your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



# Bird Activity Report: Farm 4

Date	Total Bird Count	Starling Count
9/20/2016 AM	96	64
9/20/2016 PM	0	0
9/27/2016 AM	36	16
9/27/2016 PM	189	160
9/29/2016 AM	173	160
10/6/2016 AM	20	0
10/6/2016 PM	0	0
10/12/2016 AM	150	130
10/12/2016 PM	6	0
10/13/2016 PM	39	25

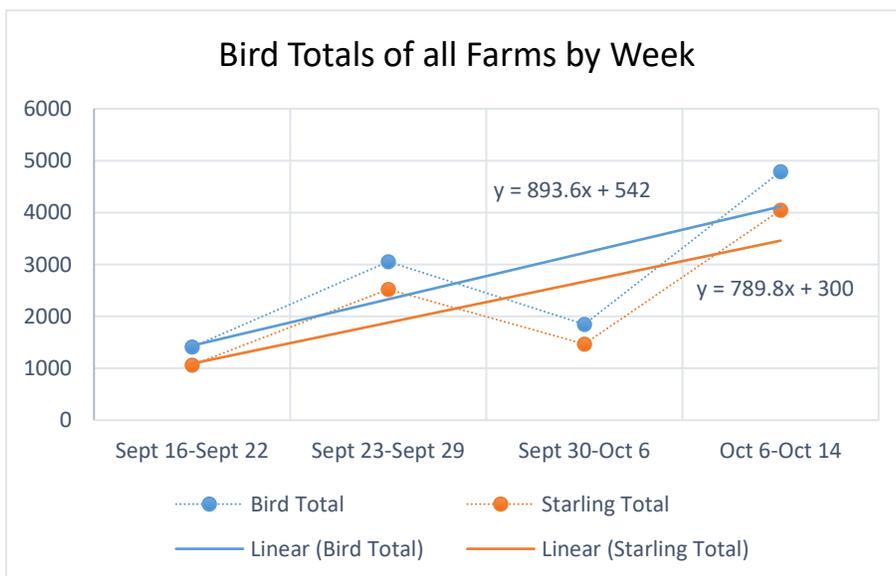


★ indicates that one or more raptors were observed at that time

## Behavior Observations:

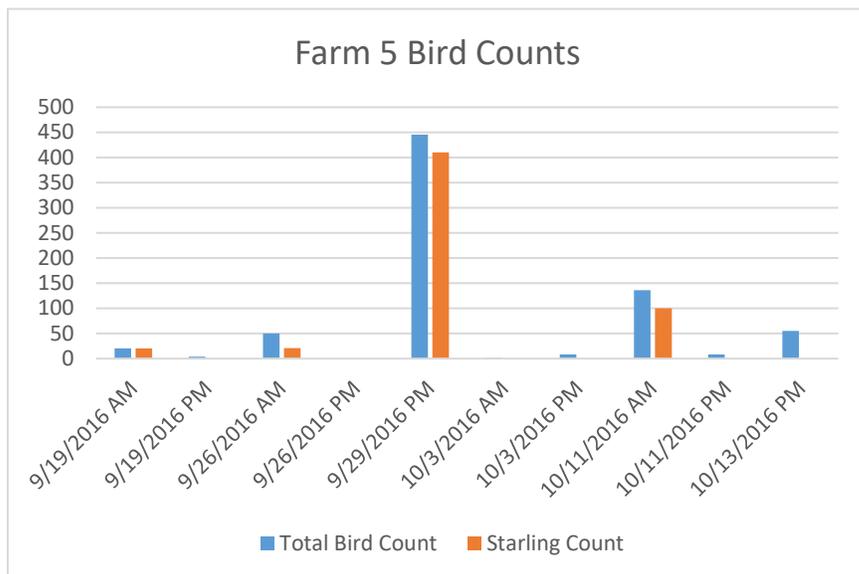
- Both starling and pigeon activity centered around feed lane, barn roofs, tall silo, and trees on east side of property
- Common for flocks of birds to intermittently fly between all three above locations
- 2 Cooper’s hawks were observed on one day; 1 chasing birds in trap and 1 flying around farm
- Starling activity centered around morning hours, potential site for roosting

**Warning: Raptor activity has been observed on your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 5

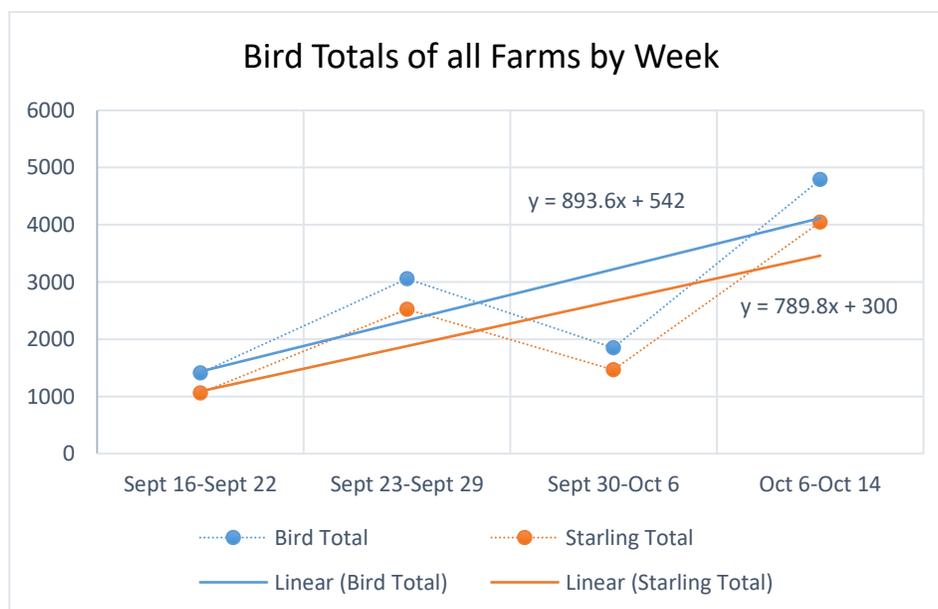
Date	Total Bird Count	Starling Count
9/19/2016 AM	20	20
9/19/2016 PM	4	0
9/26/2016 AM	50	21
9/26/2016 PM	0	0
9/29/2016 PM	446	410
10/3/2016 AM	1	0
10/3/2016 PM	8	0
10/11/2016 AM	136	100
10/11/2016 PM	8	0
10/13/2016 PM	55	0



### Behavior Observations:

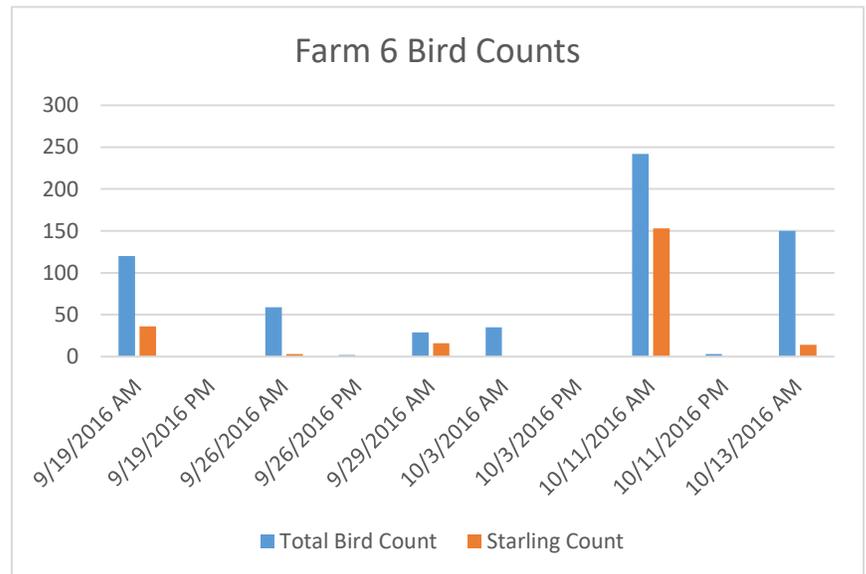
- Daytime starling and pigeon activity very high in feed lanes on east side of farm (9/29 on graph), early morning and night activity was rarely observed
- Birds typically kept to edge of barns and did not go far inside
- Common for flocks to fly between feed lanes, roofs, and tress to northeast of property

**Warning: Raptor activity has been observed near your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 6

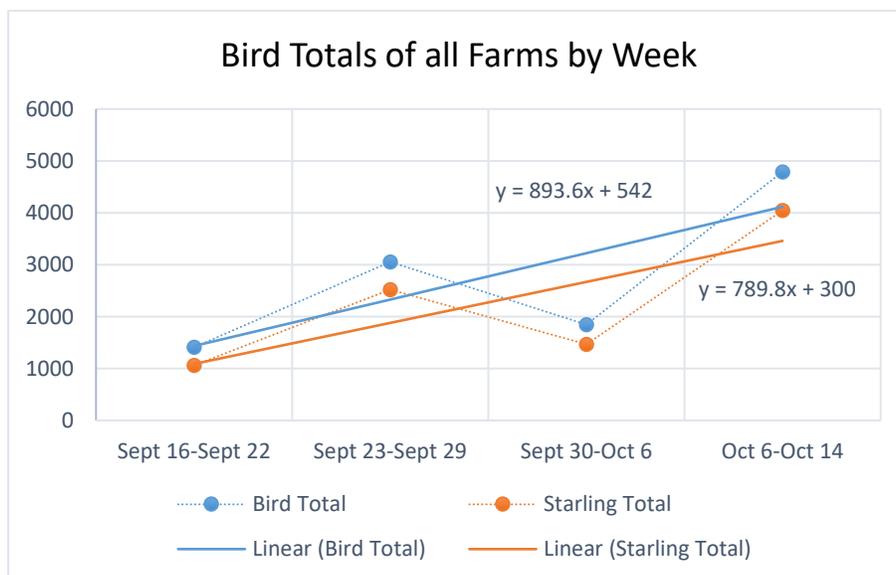
Date	Total Bird Count	Starling Count
9/19/2016 AM	120	36
9/19/2016 PM	0	0
9/26/2016 AM	59	3
9/26/2016 PM	2	0
9/29/2016 AM	29	16
10/3/2016 AM	35	0
10/3/2016 PM	0	0
10/11/2016 AM	242	153
10/11/2016 PM	3	0
10/13/2016 AM	150	14



### Behavior Observations:

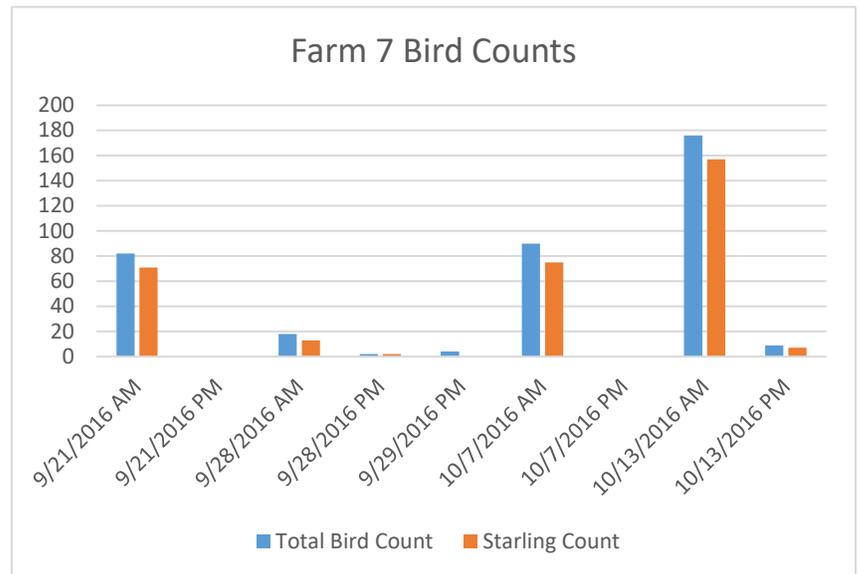
- Interestingly, starling counts were quite low while crow counts were very high, especially in the early morning
- Possible that crows deter starlings
- Except for pigeons, bird activity inside barns was low
- Birds primarily flew between barn roofs, field to the south, and trees to the northeast

**Warning: Raptor activity has been observed near your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 7

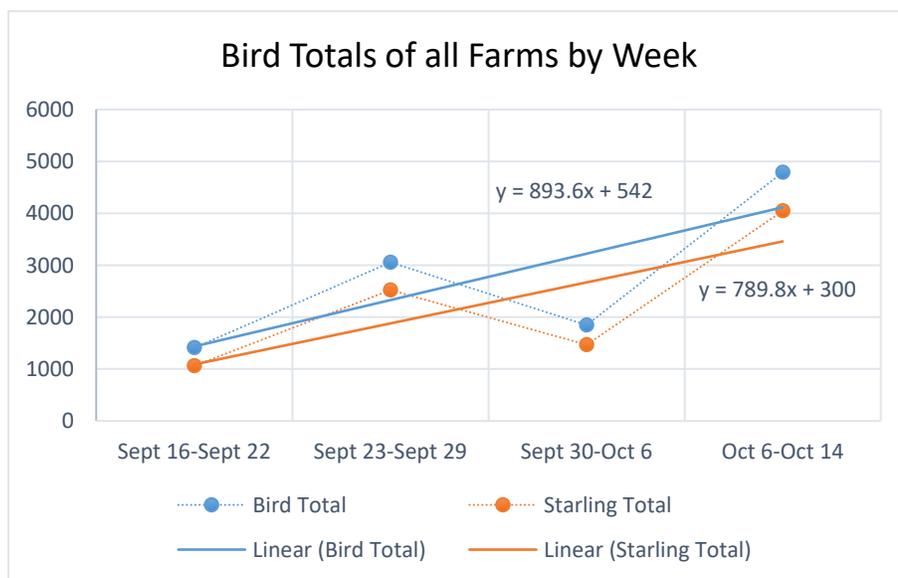
Date	Total Bird Count	Starling Count
9/21/2016 AM	82	71
9/21/2016 PM	0	0
9/28/2016 AM	18	13
9/28/2016 PM	2	2
9/29/2016 PM	4	0
10/7/2016 AM	90	75
10/7/2016 PM	0	0
10/13/2016 AM	176	157
10/13/2016 PM	9	7



### Behavior Observations:

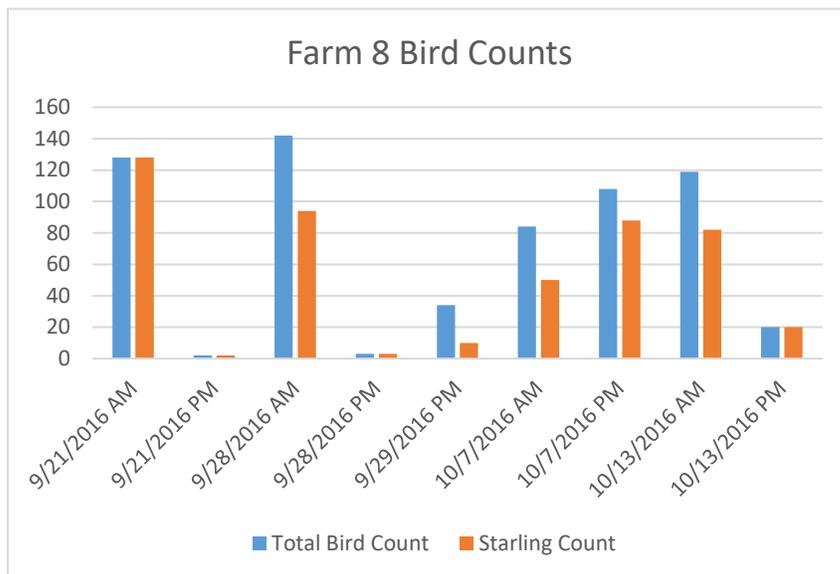
- Minimal bird activity inside barns besides occasional pigeons
- Most activity is on roofs and top of tall silo during morning hours
- Notable starling activity on power lines along road south of farm, though usually they keep away from barns

**Warning: Raptor activity has been observed near your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 8

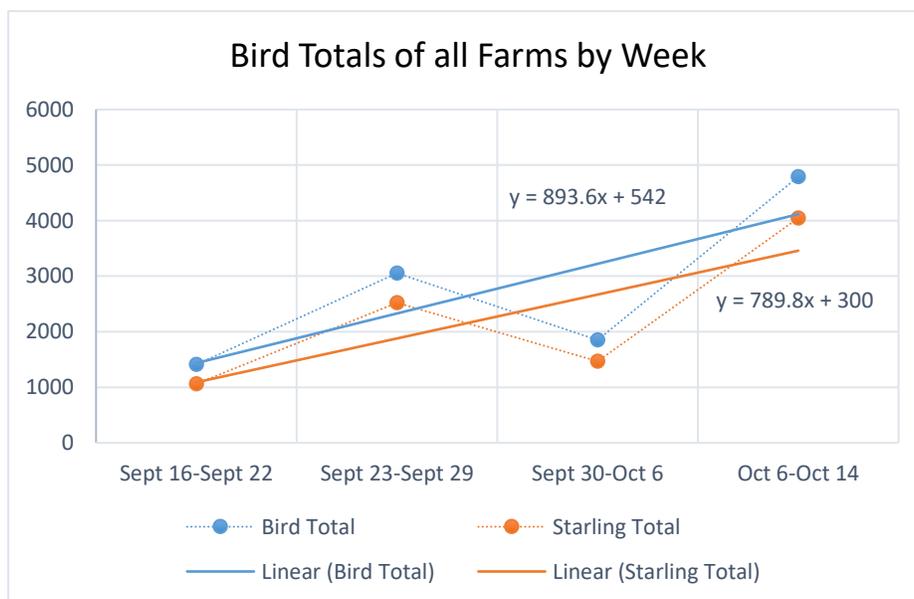
Date	Total Bird Count	Starling Count
9/21/2016 AM	128	128
9/21/2016 PM	2	2
9/28/2016 AM	142	94
9/28/2016 PM	3	3
9/29/2016 PM	34	10
10/7/2016 AM	84	50
10/7/2016 PM	108	88
10/13/2016 AM	119	82
10/13/2016 PM	20	20



### Behavior Observations:

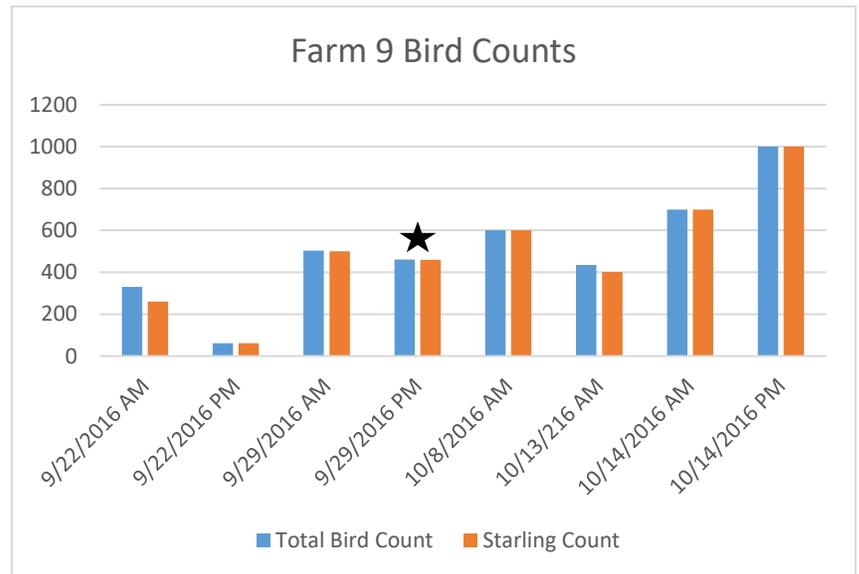
- Starling roosting observed: high activity during early morning and late evening in barns
- Starlings and pigeons gather along opening at roof peak of barn
- Low starling activity during midday and afternoon suggests starlings seek food elsewhere

**Warning: Raptor activity has been observed near your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 9

Date	Total Bird Count	Starling Count
9/22/2016 AM	330	261
9/22/2016 PM	61	61
9/29/2016 AM	503	500
9/29/2016 PM	461	460
10/8/2016 AM	600	600
10/13/2016 AM	435	402
10/14/2016 AM	700	700
10/14/2016 PM	1000	1000

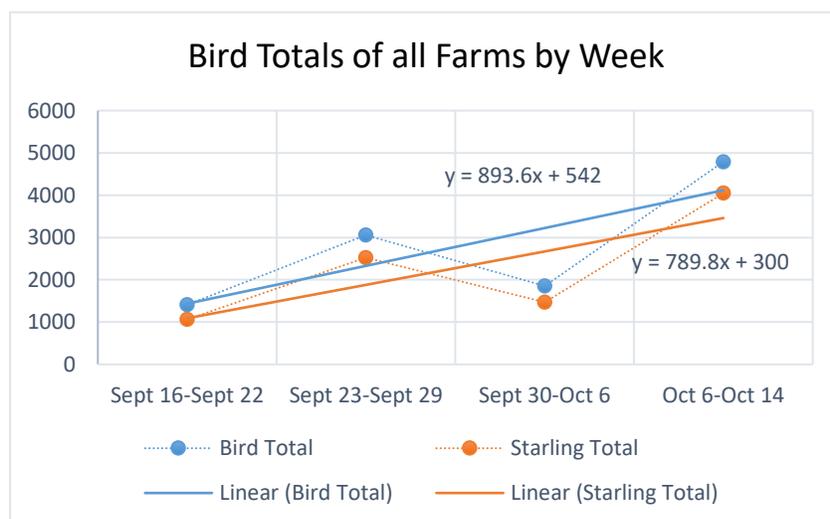


★ indicates that one or more raptors were observed at that time

### Behavior Observations:

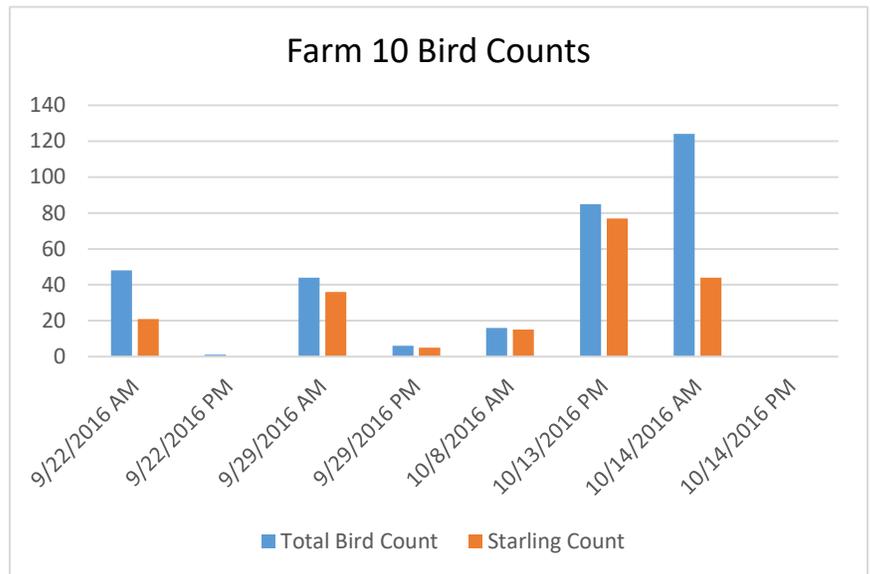
- Starling roosting activity observed as well as daytime activity
- Generally, starlings preferred to be in the older barns, especially the one closest to the manure pond
- Starling flocks often flew between barns, power lines along Abbot Rd, and trees on south side of property

**Warning: Raptor activity has been observed on your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



# Bird Activity Report: Farm 10

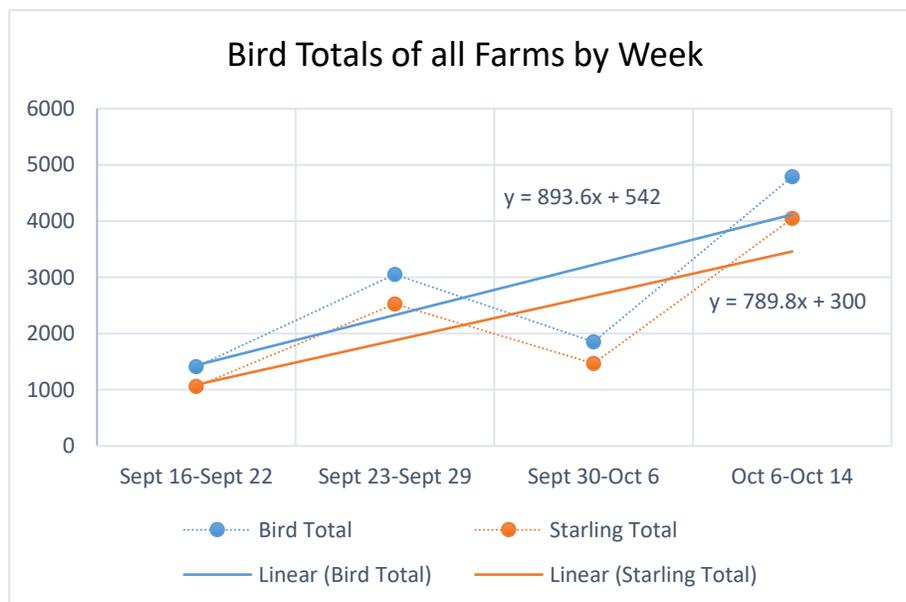
Date	Total Bird Count	Starling Count
9/22/2016 AM	48	21
9/22/2016 PM	1	0
9/29/2016 AM	44	36
9/29/2016 PM	6	5
10/8/2016 AM	16	15
10/13/2016 PM	85	77
10/14/2016 AM	124	44
10/14/2016 PM	0	0



## Behavior Observations:

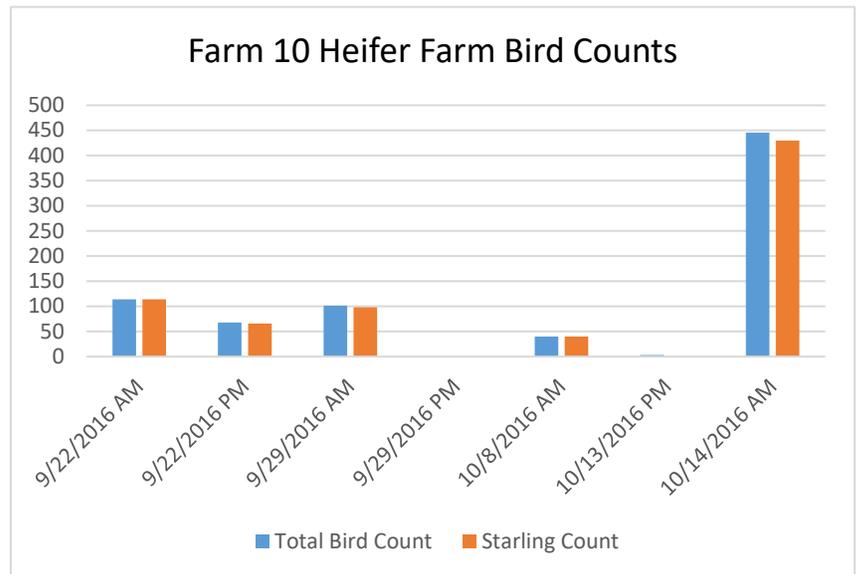
- Minimal bird activity in barns, though starlings and pigeons were observed on barn roofs
- One instance of starling activity on feed
- Majority of starling activity was on power lines along road and trees near the river
- Minimal evening activity suggests birds fly in from other locations during the day

**Warning: Raptor activity has been observed near your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



## Bird Activity Report: Farm 10 heifer farm

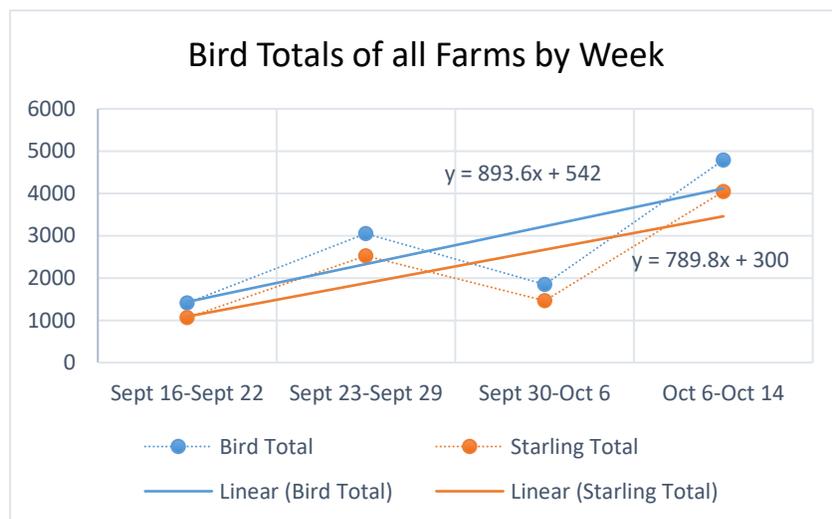
Date	Total Bird Count	Starling Count
9/22/2016 AM	114	114
9/22/2016 PM	68	66
9/29/2016 AM	101	98
9/29/2016 PM	0	0
10/8/2016 AM	40	40
10/13/2016 PM	3	0
10/14/2016 AM	446	430



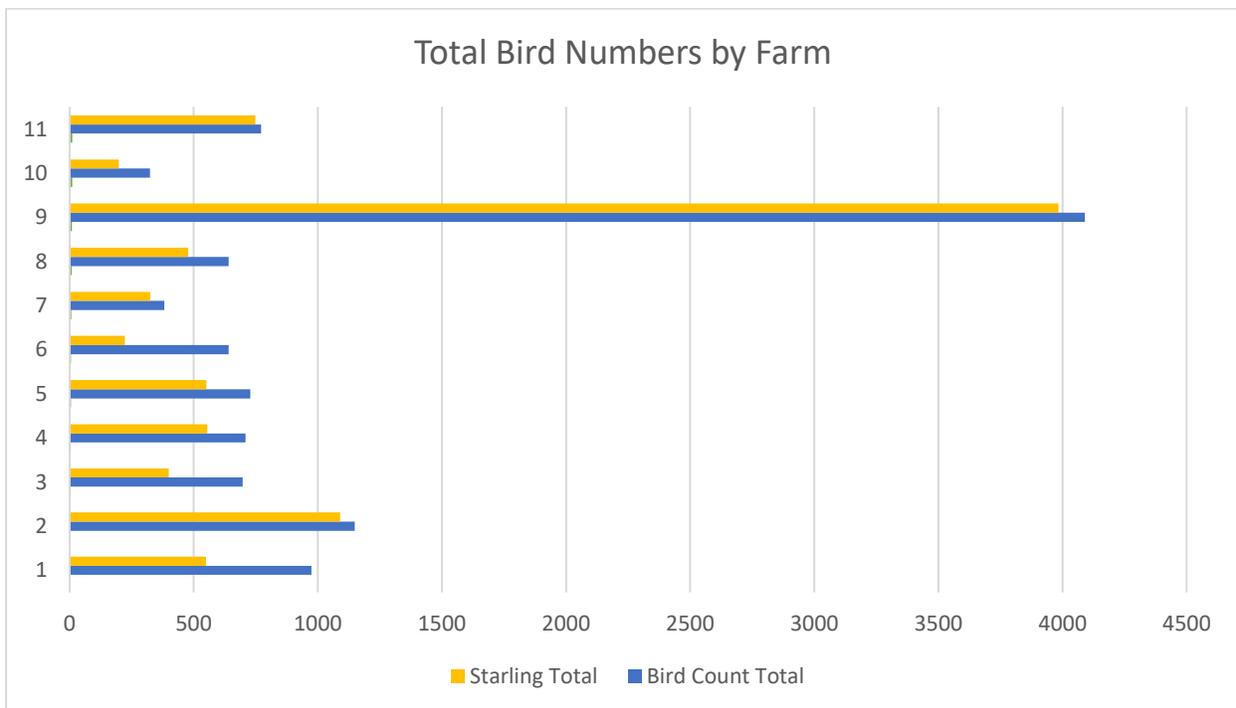
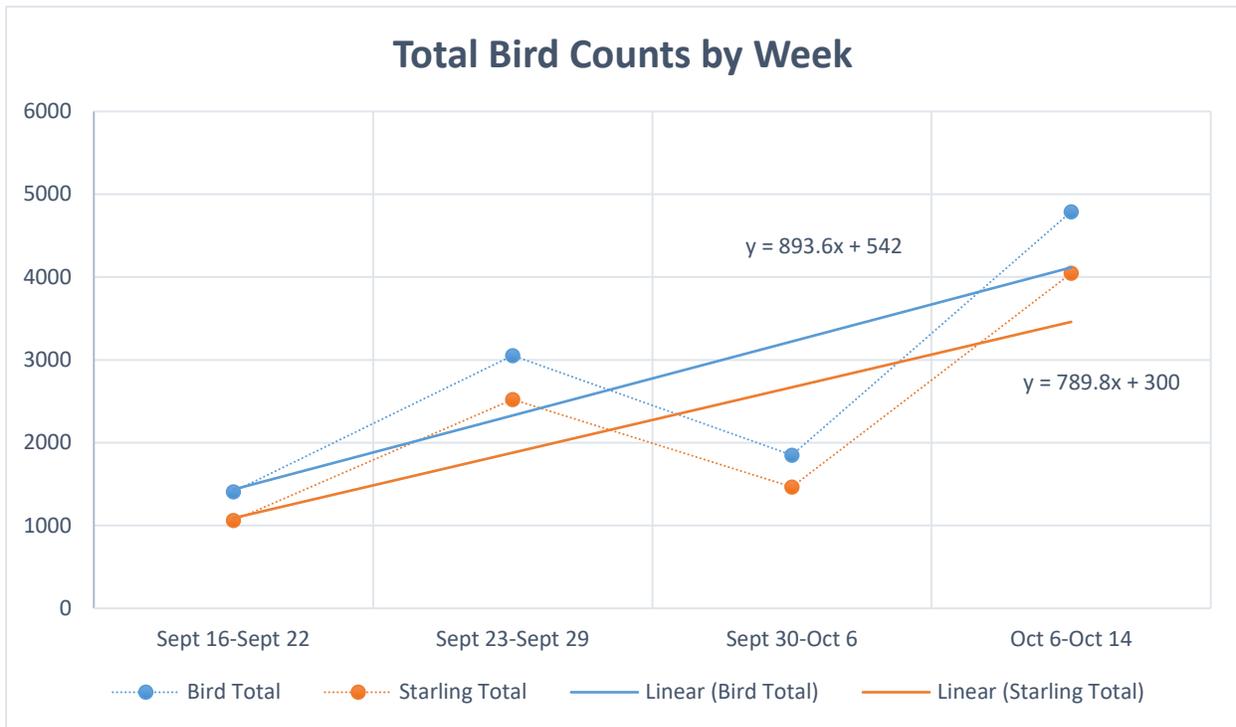
### Behavior Observations:

- High daytime activity (10/14), primarily starling
- Starlings and pigeons generally avoid large barn and flock around barn on north side
- Birds frequently in feed
- Common for birds to fly between feed, barn rafters, barn roofs, and power lines along road

**Warning: Raptor activity has been observed on your property. Please avoid the use of rodent poison as it can be a lethal threat to birds of prey.**



Assorted Graphs:



The following is the results of the ANOVA test performed on the data for the total number of birds observed at each farm. Sample 1 represents data collected during Week 1, Sample 2 represents data collected during Week 2, and so on.

<i>Data Summary</i>						
	Samples					
	1	2	3	4	5	Total
N	22	30	26	25		103
$\Sigma X$	1410	3054	1850	4790		11104
Mean	64.0909	101.8	71.1538	191.6		107.8058
$\Sigma X^2$	211612	871934	611158	2399540		4094244
Variance	5773.5152	19346.0966	19180.9354	61740.6667		28403.609
Std.Dev.	75.9837	139.0902	138.4953	248.4767		168.5337
Std.Err.	16.1998	25.3943	27.1612	49.6953		16.6061

standard weighted-means analysis					
<i>ANOVA Summary</i> Independent Samples k=4					
Source	SS	df	MS	F	P
Treatment [between groups]	253588.1137	3	84529.3712	3.17	0.027664
Error	2643580.0028	99	26702.8283		
Ss/Bl					<a href="#">Graph Maker</a>
Total	2897168.1165	102			

Ss/Bl = Subjects or Blocks depending on the design.  
Applicable only to correlated-samples ANOVA.

#### *Tukey HSD Test*

HSD[.05]=119.8; HSD[.01]=146.57  
M1 vs M2 nonsignificant  
M1 vs M3 nonsignificant  
M1 vs M4 P<.05  
M2 vs M3 nonsignificant  
M2 vs M4 nonsignificant  
M3 vs M4 P<.05

M1 = mean of Sample 1  
M2 = mean of Sample 2  
and so forth.

HSD = the absolute [unsigned] difference between any two sample means required for significance at the designated level. HSD[.05] for the .05 level; HSD[.01] for the .01 level.