

BREEDER 6-PHASE MANAGEMENT



Sandy James Lee

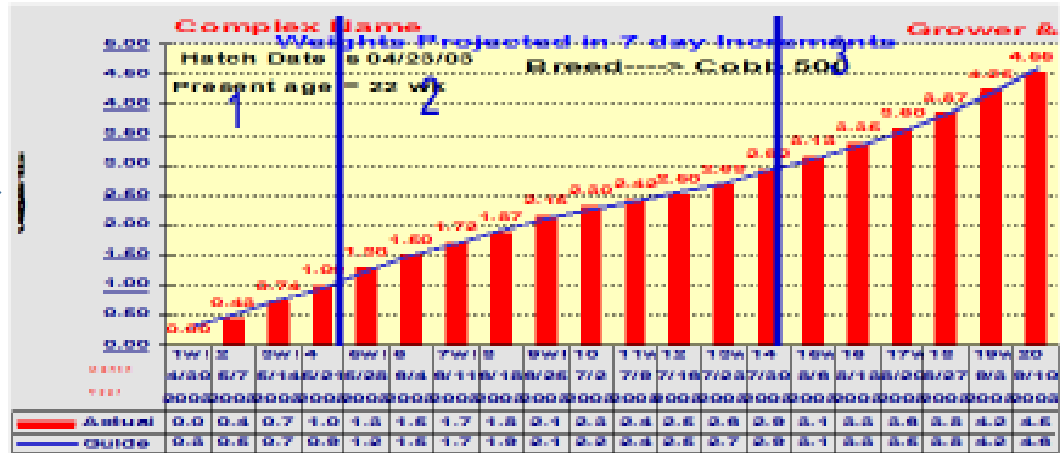
6-PHASE PROGRAM

PHASE	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6
AGE (WKS)	1 thru 4	5 thru 15	16 thru 20	21 thru 24	25 thru 35	36 thru sell
GOAL	#1 Start Flock on a Measured Feed Amount	#1 Aggressively Manage Weight Gains from Wk. to Wk.	#1 Achieve Zero Light Violations	#1 Weekly Mortality @/Below .18%	#1 Achieve Plotted Weekly Weight Gains	#1 INDEX >112 FERTILITY >96% at 40 Weeks of Age
	#2 Follow the Feed Guide	#2 Goal of 12% or Less CV	#2 Goal of 10% CV	#2 Smooth Transition in Weight Gain from Pullet to Hen Barn	#2 Peak Feed Amount of 33.0 - 33.5 lbs / 14.97 - 15.20 kg	#2 INDEX >112 FERTILITY >94% at 50 Weeks of Age
	#3 Achieve 1 lb / .45 kg Weight Target at 4 Weeks of Age	#3 Achieve Proper Weight Target at 15 Weeks of Age	#3 Achieve Proper Weight Target at 20 Weeks of Age (Gain 1.40 lb/.64 kg since 15 Weeks)	#3 Achieve Proper Weight Target at 25 Weeks of Age (Gain 2.00 lb/ .91 kg since 20 Weeks)	#3 Achieve 112 Index or Greater at 35 Weeks of Age with Body Weight Below 8.0 lbs / 3.63 kg	#3 INDEX >112 FERTILITY >92% at 60 Weeks of Age
RESULT	DEVELOP OPTIMUM BODY FRAME	BODY WEIGHT MAINTENANCE FOR OPTIMUM EGG SIZE & FEED CONVERSION	READY for PHOTO-STIMULATION	OPTIMIZED SEXUAL MATURITY & FERTILITY	PREVENTION of EXCESS WEIGHT GAIN for OPTIMUM PEAK PRODUCTION	PERSISTENT FERTILE HATCHING EGG PRODUCTION

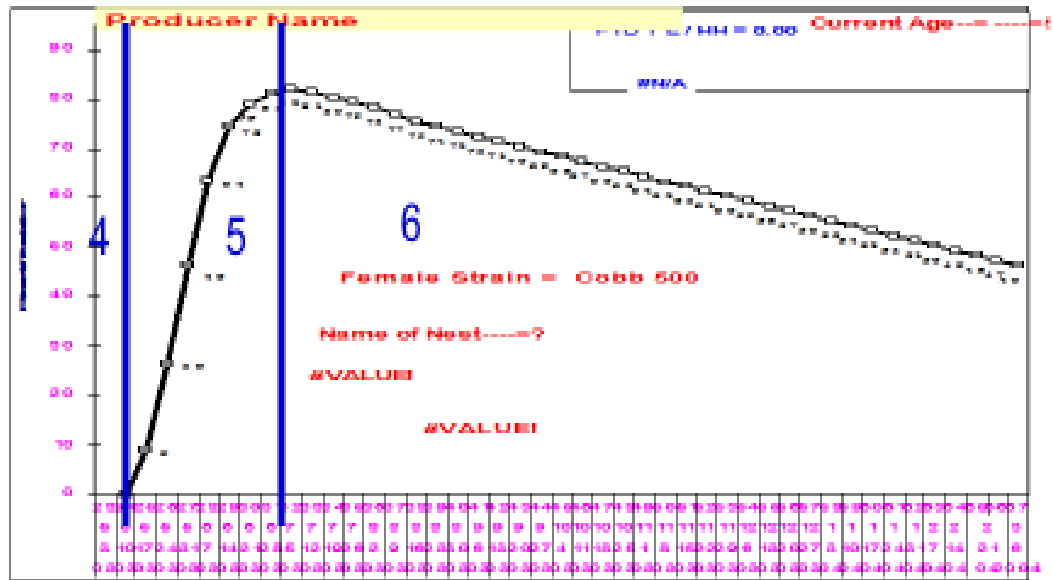
6-PHASE PROGRAM

6 Phases of Broiler-Breeder Hen Program

Phases 1 to 3 occur in the pullet house



Phases 4 to 6 occur in the hen house



6-PHASE PROGRAM

	Age	Weight	Feed	Farm: Four S, Vallias
Phase I	0	0.10	4.43	no larger than 1.00 lb no less than .90 watch cv and uniformity
	1	0.30	6.25	
	2	0.50	7.00	
	3	0.75	8.00	
	4	1.00	8.40	
Phase II	5	1.20	8.80	no turn up feed or large feed bumps. if behind go with small incremental increase. Critical cv and uniformity monitoring. Cull non thrifty birds
	6	1.40	9.15	
	7	1.60	9.45	
	8	1.75	9.65	
	9	1.90	9.90	
	10	2.05	10.15	
	11	2.25	10.35	
Phase III	12	2.45	10.50	give extra day if birds are behind cv and uniformity
	13	2.65	11.70	
	14	2.85	12.80	
	15	3.05	14.00	
	16	3.27	15.00	20 week 33-34% gain Goal <10 cv and wt of 4.40
	17	3.52	16.00	
	18	3.77	17.00	
	19	4.10	18.25	
20	4.50	19.50		
Phase IV	21	4.70	21.75	watch cv and wt at age 23-24 (first egg usually 12-14 days after move) 23.75lbs/100 by 5% production start production feed at 10%
	22	5.00	22.25	
	23	5.35	22.75	
	24	5.75	23.25/23.75	
	25	6.30	Pro feed	

POOR PULLET BROODING

INADEQUATE SUPPLEMENTAL WATER



POOR PULLET BROODING

INADEQUATE FEED DISTRIBUTION



PROPER PULLET BROODING



PULLET BARN FEED SYSTEMS

UNDERSIZED INCOMING FEED SYSTEMS

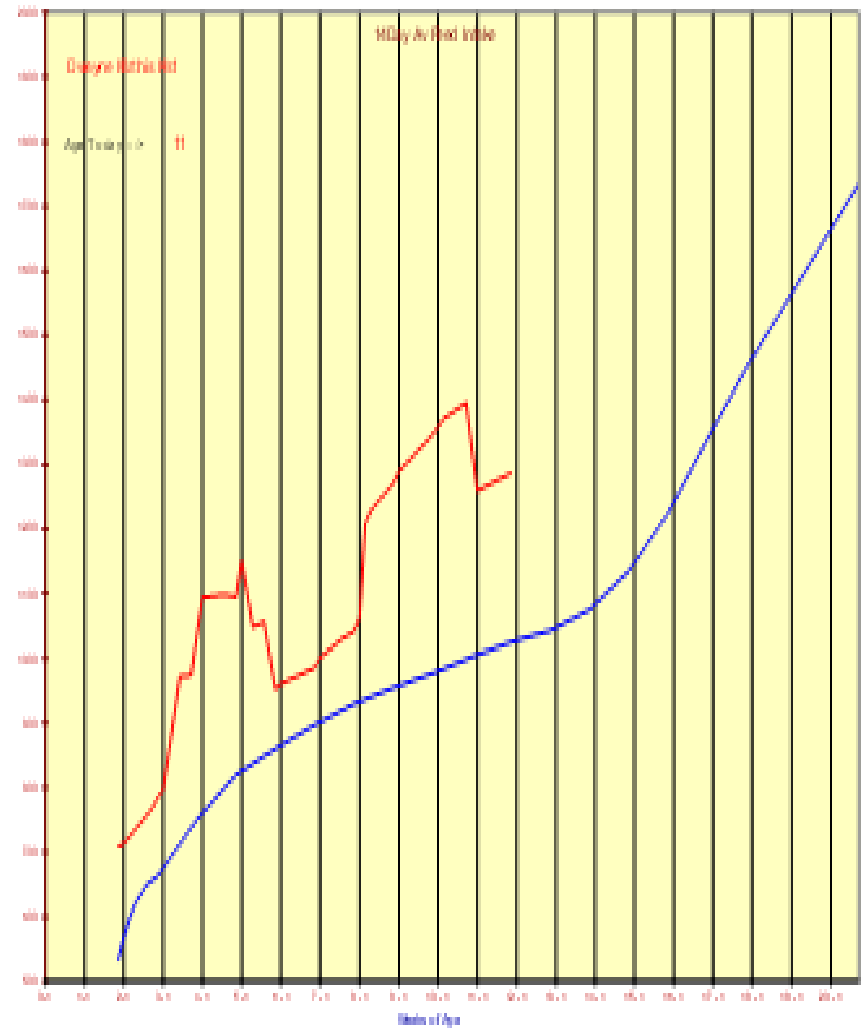
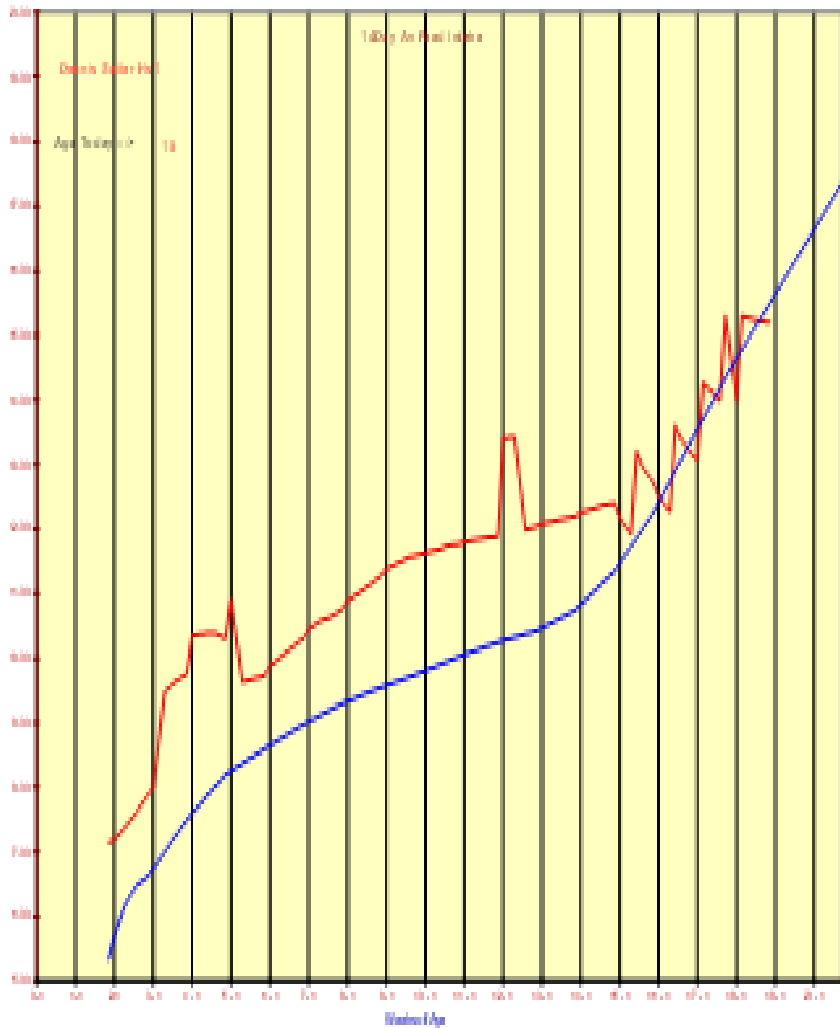


6-PHASE PROGRAM

PHASE 1

	Age	Weight	Feed	Farm: Four S, Vallias		
Phase I	0	0.10	4.43	no larger than 1.00 lb no less than .90 watch cv and uniformity		
	1	0.30	6.25			
	2	0.50	7.00			
	3	0.75	8.00			
	4	1.00	8.40			

PHASE 1 = TOO MUCH FEED



BREEDER FLOCK 6-PHASE SCORE CARD

8%	13%	PHASE 1: (PLACEMENT to 4 WKS of AGE)
1	1	❖ Supplemental Feed Pans/Chick Goal: 1/100 Chicks
0	1	❖ Supplemental Drinkers/Chick Goal: 1/500 Birds
0	1	❖ .50% or Less 7-Day Mortality
0	1	❖ Starter Feed: Crumble Feed with an 18% Protein Diet & 0.92% available Lysine
1	1	❖ Starter Feed: 2.5#/100 or 28 days
1	1	❖ Sq. Ft. Per Bird Goal: 1.45 Sq. Ft.
5	5	❖ 4 Week Pullet Weight Goal: .95 – 1.05 lbs.
0	2	❖ 4 Week Rooster Weight Goal: 1.40 – 1.50 lbs.

6-PHASE PROGRAM

PHASE 2

Phase II	5	1.20	8.80	no turn up feed or large feed bumps. if behind go with small incremental increase. Critical cv and uniformity monitoring. Cull non thrifty birds
	6	1.40	9.15	
	7	1.60	9.45	
	8	1.75	9.65	
	9	1.90	9.90	
	10	2.05	10.15	
	11	2.25	10.35	

PULLET HOUSE LIGHT INTENSITY

1-1.25 FOOT CANDLES



POOR PULLET BARN VENTILATION

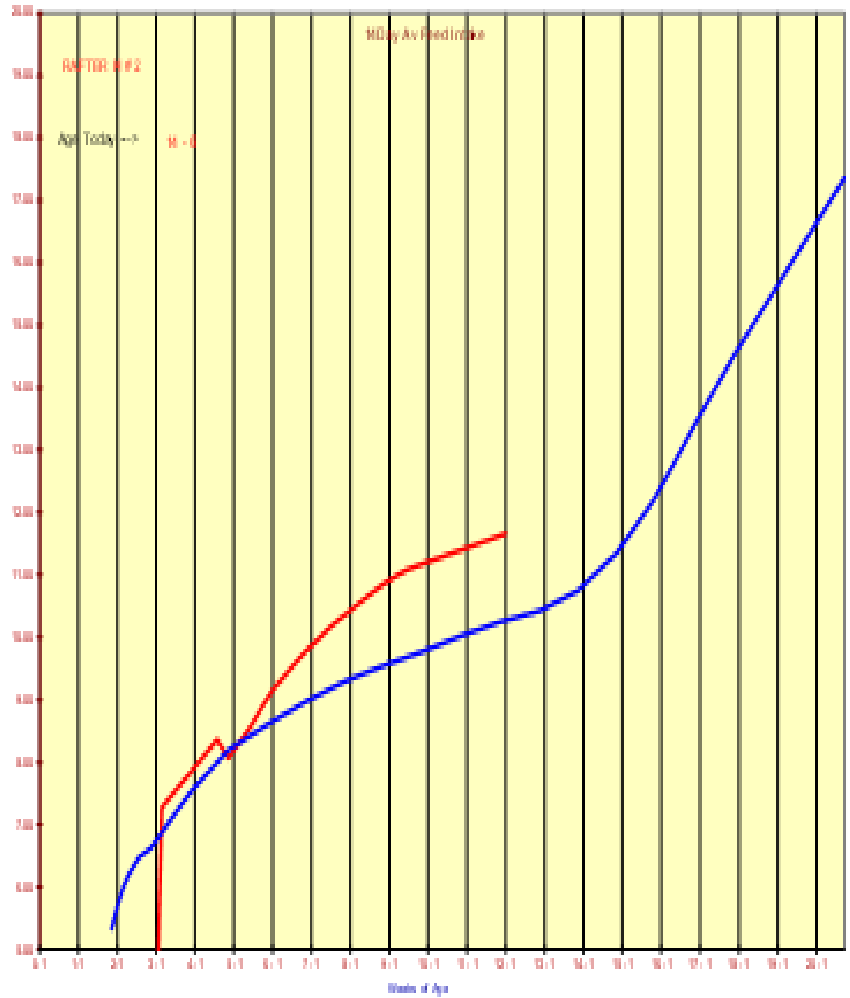
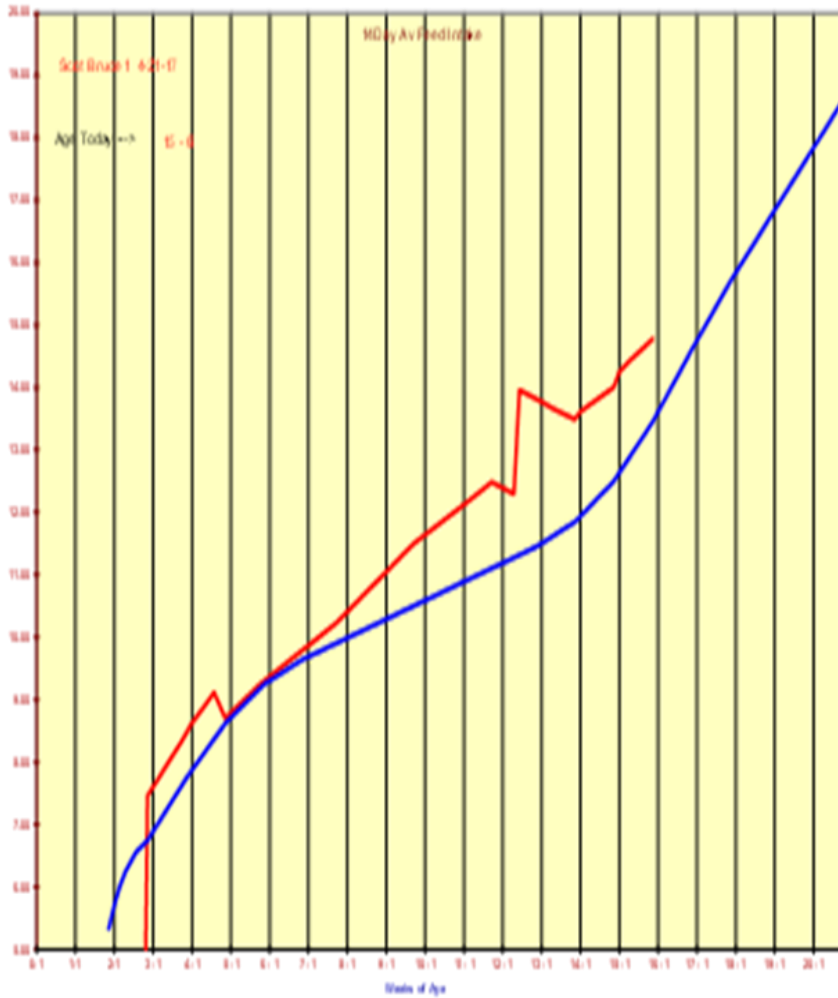


POOR PULLET BARN

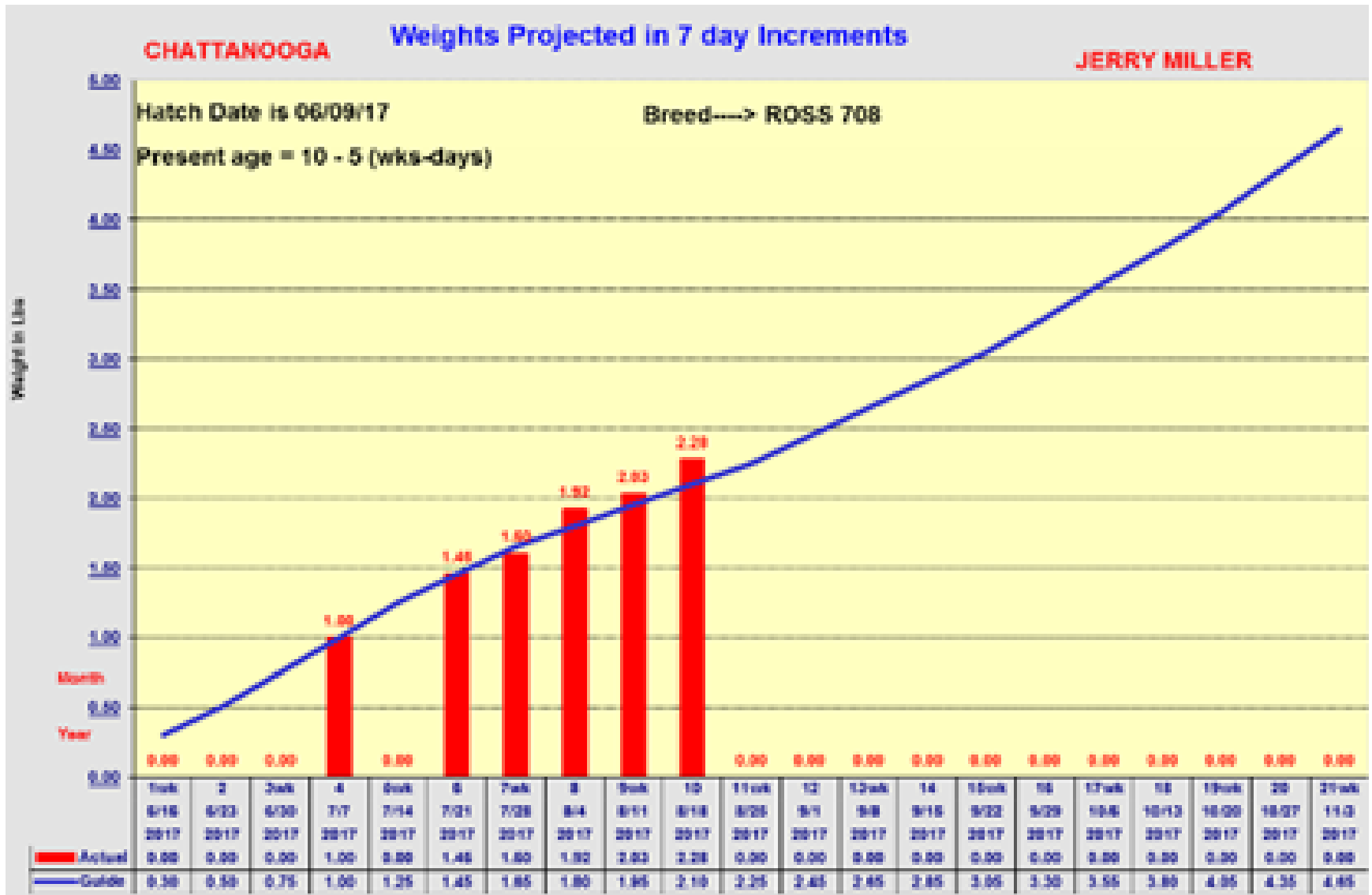
FOUNDATION PROBLEMS



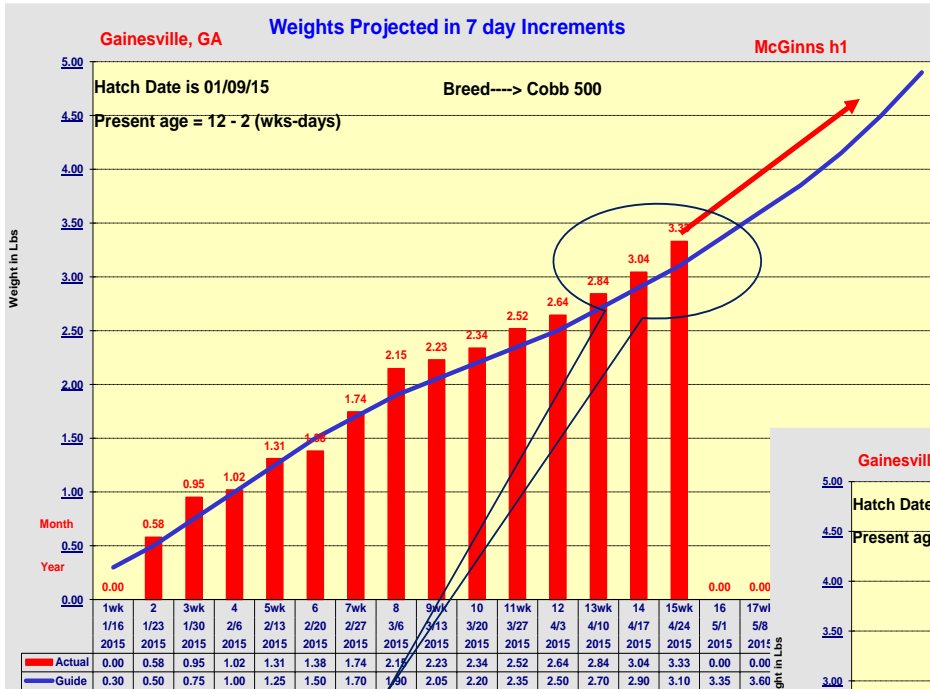
PHASE 2 = TOO MUCH FEED



PHASE 2 = HEAVY PULLETS



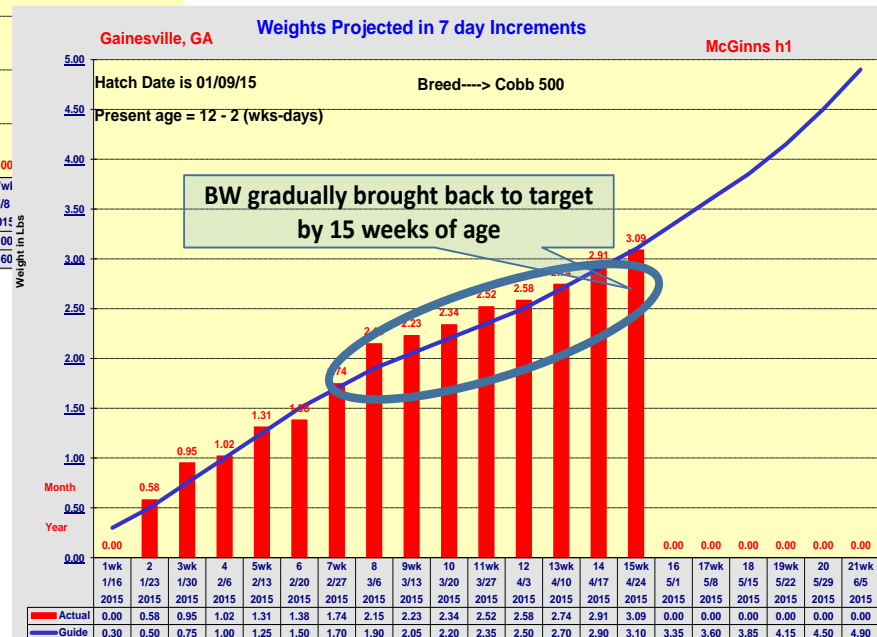
PHASE 2 = HEAVY PULLETS



If heavier at 15 week, then we have to keep pullets steadily growing at a parallel trajectory to the original guide resulting in heavier hens

Phase 2: Setting up egg production persistency and better Feed Efficiency

- Setting up for good feed conversion (lb/Dz HE)
- Setting up for easier post-peak hen management
- Controlling egg size and shell quality
- Keeping mortality low,
- Higher hen fertility



6-PHASE PROGRAM

PHASE 3

Phase III	12	2.45	10.50	give extra day if birds are behind cv and uniformity
	13	2.65	11.70	
	14	2.85	12.80	
	15	3.05	14.00	
	16	3.27	15.00	20 week 33-34% gain Goal <10 cv and wt of 4.40
	17	3.52	16.00	
	18	3.77	17.00	
	19	4.10	18.25	
	20	4.50	19.50	

6-PHASE PROGRAM

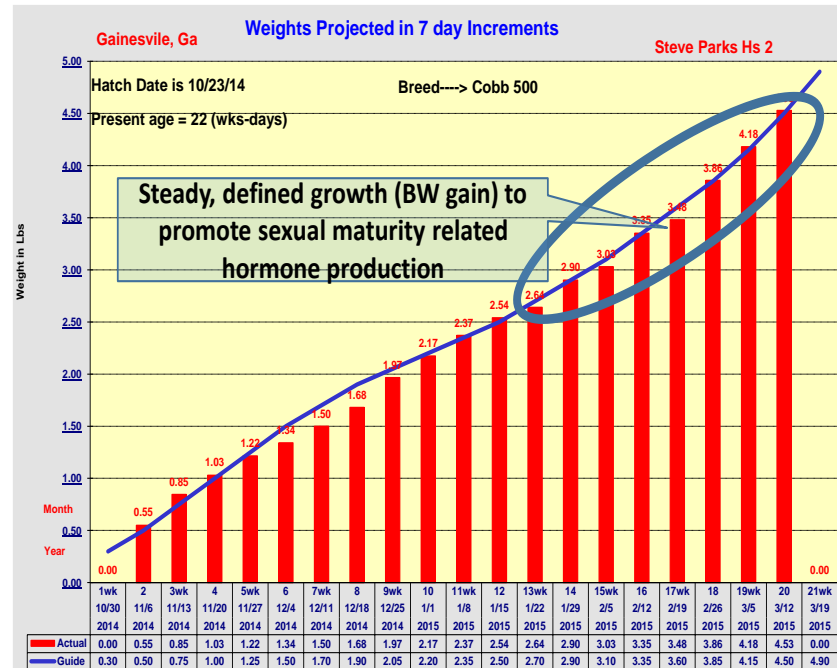
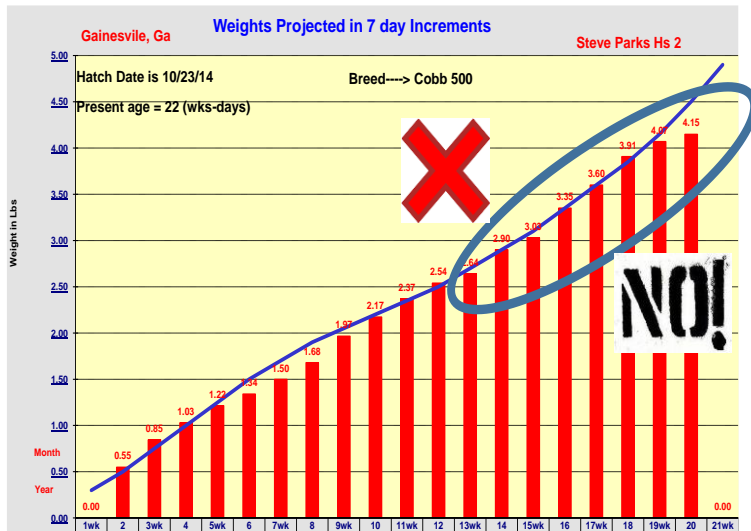
PHASE 3

- From 12 weeks to housing need to increase feed CONSISTENTLY
- Increase energy intake takes approx. 2 weeks to show up in the bird.
- Prepare the pullet for sexual maturity

PHASE 3

Phase 3 (16-Move): Getting Ready for Photo-Stimulation

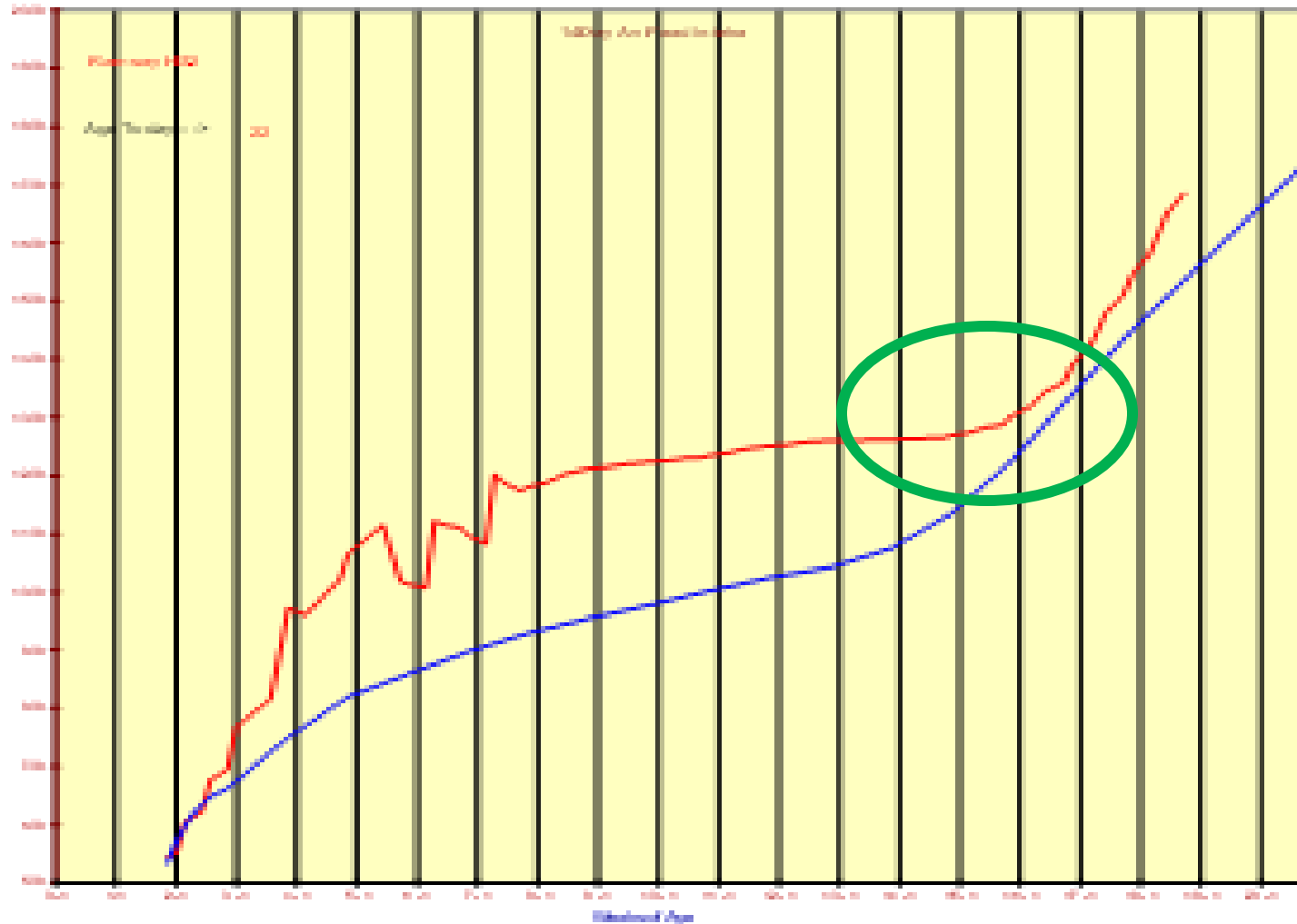
- 4 to 5 weeks of steady growth (BW Gain) needed for the entire flock to ensure small and large pullets in the flock experience required growth to produce and store in their pituitary gland the hormones related to sexual maturity.
- No light violation during this period (8 H light window) to avoid de-sensitizing pullets to light stimulation later
- Move Age should depend on flock uniformity. We should be sure that no pullet is below 3.5 lb on the day of photo-stimulation



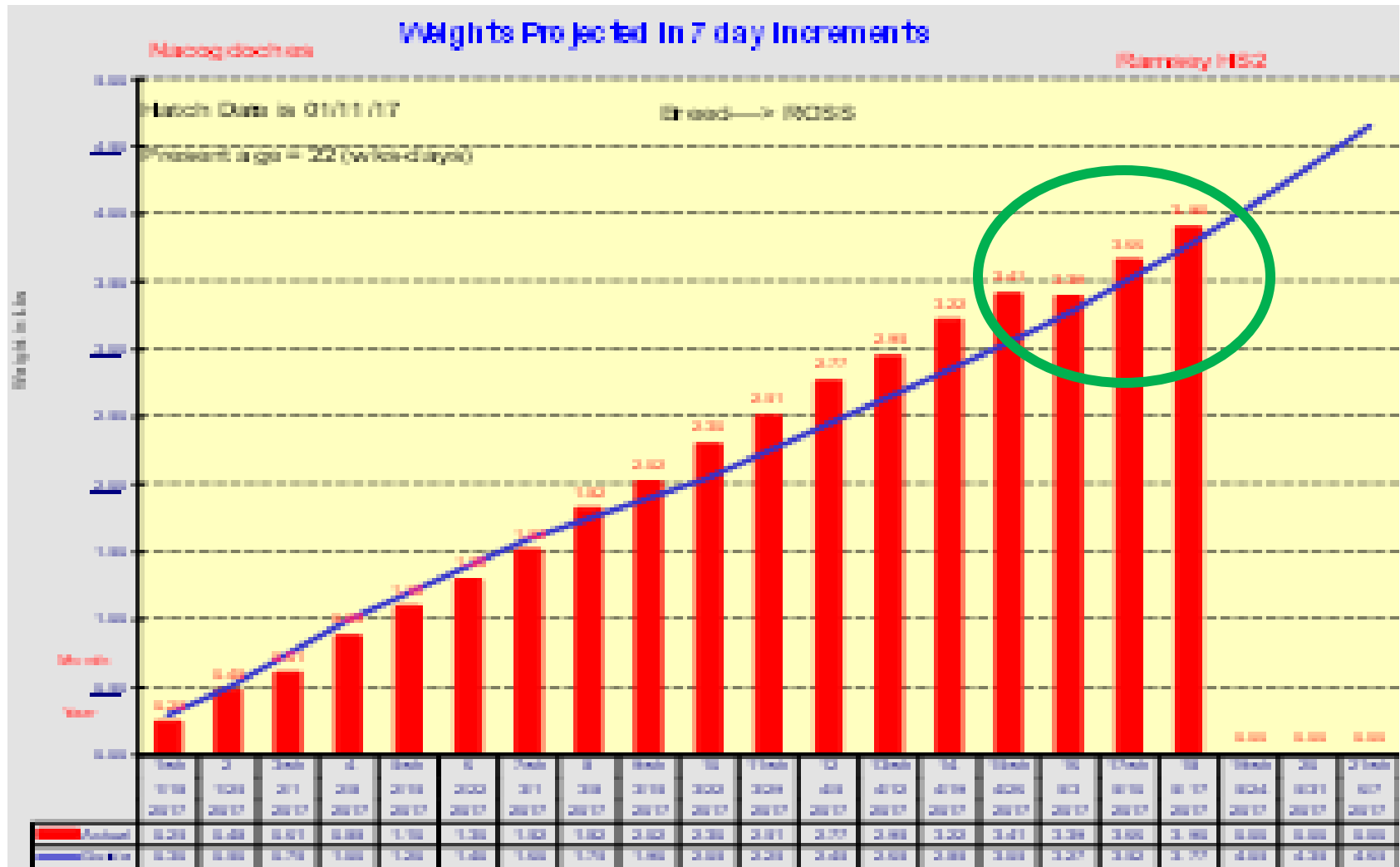
Get your team (flock) ready for the race



PHASE 3 = TOO LITTLE FEED



PHASE 3 = PULLET WEIGHTS STALL



BREEDER FLOCK 6-PHASE SCORE CARD

4%	43%	PHASE 2 & PHASE 3: (5 WKS of AGE to MOVE)
1	1	❖ Pullet Developer Feed: Mash Feed: Coarse Grind Corn (1,250 microns) -- 1270 Kcal -- 14.5-15.5% Protein -- .60% Available Lysine
0	1	❖ Feed Lines Remain Charged to Ends of House
0	1	❖ Proper Feed Transitions: 3 WKS = 6-1 Feed ---- 5 WKS = 5-2 Feed ---- 7 WKS = 4-3 Feed ---- 9 WKS = Skip-Day Feed
0	1	❖ Proper Worming Program: 2 WKS=Safeguard - 5 WKS=Safeguard - 8 WKS=Prohibit - 12 WKS=Safeguard - 16 WKS=Valbazen - 21 WKS=Prohibit
0	1	❖ Proper Lighting: ¼ to ½ ft candle spaced every 10 foot down both sides of house
0	5	❖ 10 Week Pullet Weight Goal: 2.00 – 2.10 lbs.
0	7	❖ 15 Week Pullet Weight Goal: 2.95 – 3.05 lbs.
0	6	❖ 20 Week Pullet Weight Goal: 4.30 lbs. – 4.45 lbs.
0	7	❖ 130% Weight Turn-Up from 15-20 Weeks of Age Achieved
0	7	❖ 20 Week Pullet CV <12
3	3	❖ Flock Moved at 21-3 to 22-0 Weeks of Age
0	1	❖ Flock Moved on 20#/100 or Less
0	2	❖ 20 Week Rooster Weight Goal: 6.10 lbs. – 6.20 lbs.

6-PHASE PROGRAM

PHASE 4

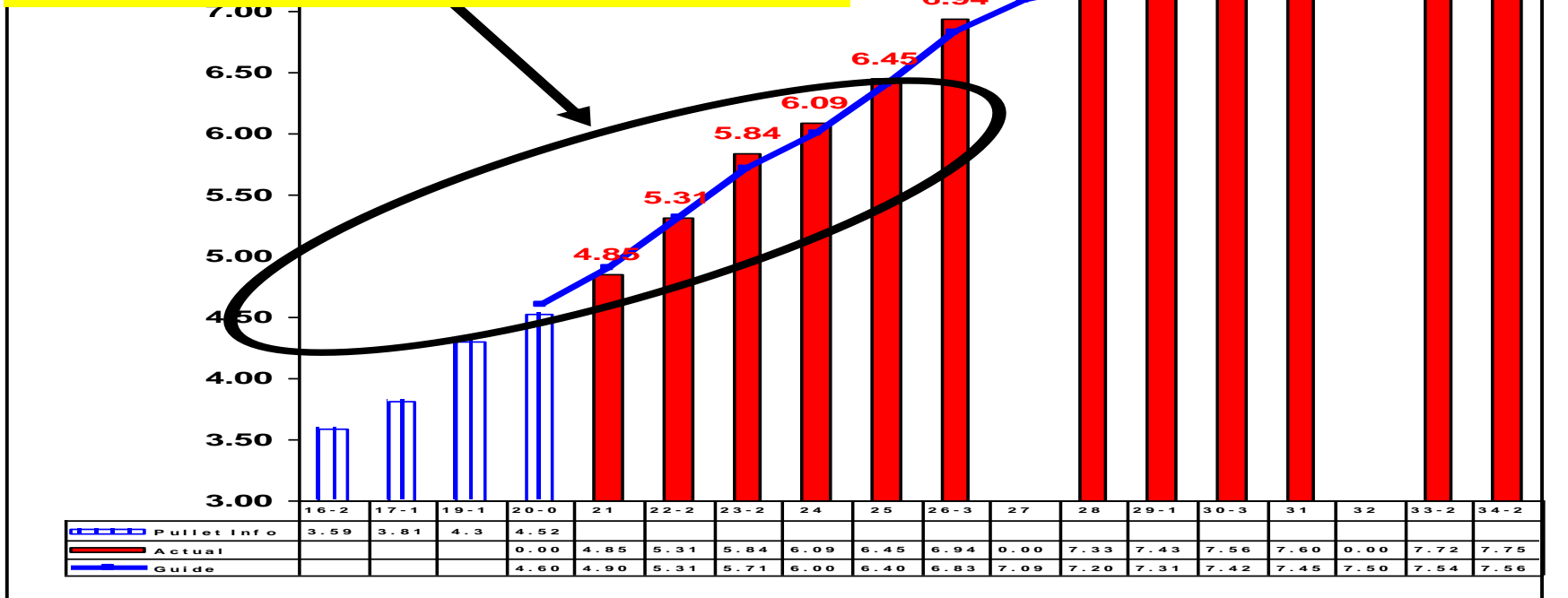
Phase IV	21	4.70	21.75	watch cv and wt at age 23-24 (first egg usually 12-14 days after move) 23.75lbs/100 by 5% production start production feed at 10%
	22	5.00	22.25	
	23	5.35	22.75	
	24	5.75	23.25/23.75	
	25	6.30	Pro feed	

PHASE 4

Phase 4 is from the time of move to hen barn to until 5% hatching egg production and in this Phase we manage the rate of sexual maturity and onset of egg production. It is important for a smooth transition from pullet barn to hen barn in body weight gain profile and be at 22 lbs./100 to 23 lbs./100 hens in feed allocation at 5% production (approximately 23 weeks and 4 days).

Smooth transition from pullet house to hen house (no hiccup in BW Gain)

Lemley



BREEDER FLOCK 6-PHASE SCORE CARD

3%	22%	PHASE 4:	(MOVE to 5% PRODUCTION)
1	1	❖ Light Increases of 1/2 Hour Given Every Two Weeks Until 16 Hours Achieved	
0	1	❖ Pre-Breeder Feed Fed from Move to 23 Weeks of Age	
0	1	❖ Last Pullet Feed Lbs/100 Fed for a Full 7 Days	
1	1	❖ Feed On 10 Minutes Before Lights	
0	1	❖ Hens Placed at 5.0 or Less Hens/Nest Hole	
0	1	❖ Feed Fed with No Skips in Feed Line	
1	1	❖ Breeder 1 Feed Started at 23 Weeks of Age: 1325 KCal Breeder Feed	
0	1	❖ Small Feed Increases Given Daily or Every 3-4 Days Until 5% Production	
0	5	❖ 22.5# - 23.5#/100 Feed @ 5% Production	
0	5	❖ Hen Cap Weight at 25 Weeks of Age: 5.95 - 6.20 lbs.	
0	4	❖ Rooster Cap Weight at 25 Weeks of Age: 7.85 - 7.95 lbs.	

INSUFFICIENT PULLET BARN SHEET



DETAILED PULLET BARN SHEET

Grower → **WILL LAY FARM**

Number of Pullets Placed = **16,000**

09/11/17

Hatch Date → **07/06/17**

Placement Density / Sq Ft = → **1.56**

Protein grams =

Female Breed **ROSS 708**

Feeder Type (Chain - Pan) = **Pan**

7day Mortality =

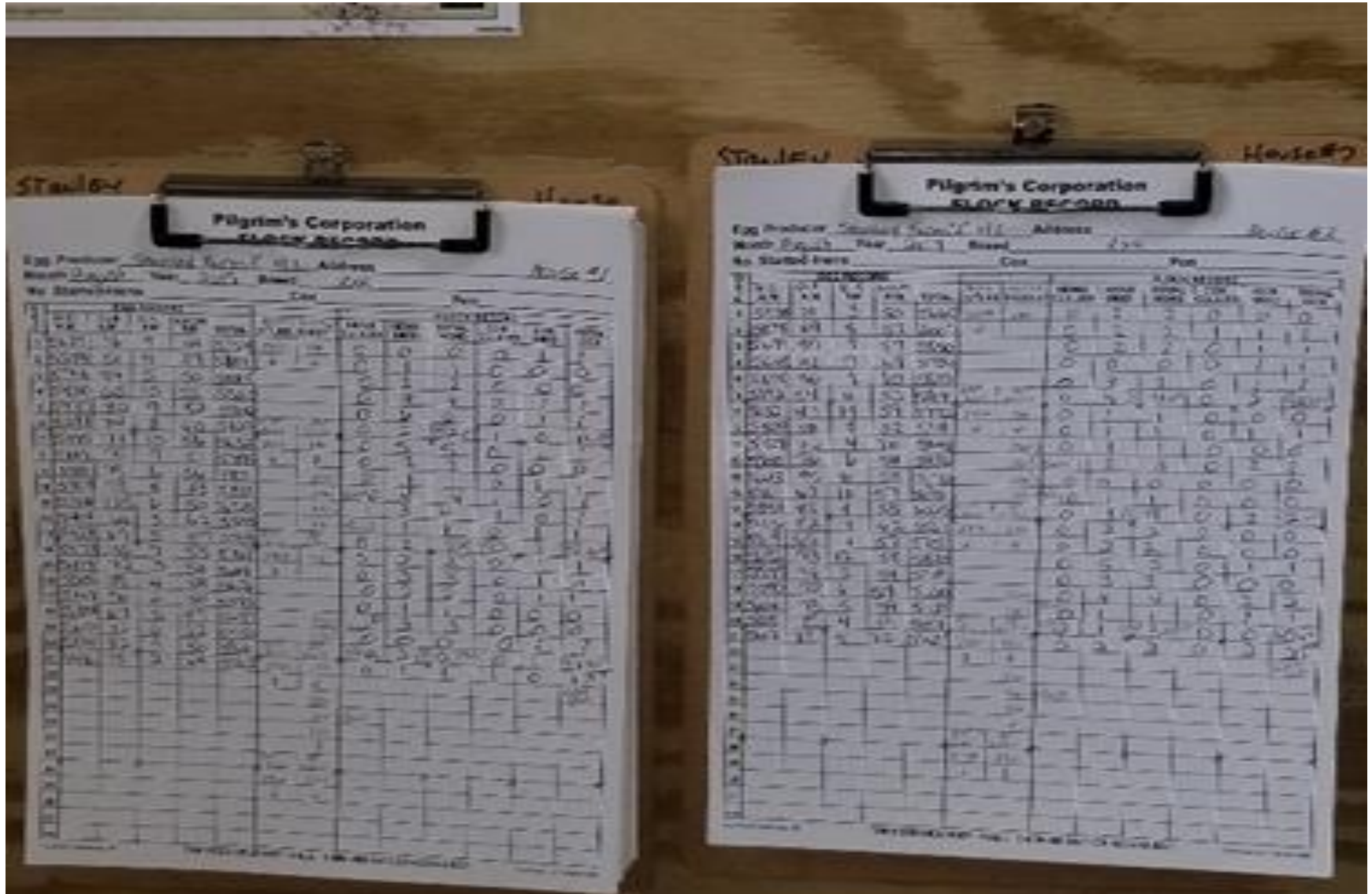
Feathering: **SLOW**

Pounds Feed / Good Pullet = **0.00**

FTD Mortality =

Date	DAY AGE	Age Wks & Days	Guide Lbs. Fd/100 /Day	Actual Lbs. Fd/100/Day	Actual Lbs. Feed Fed	Actual Body Wt.	Guide Body Wt.	Actual Body Wt. CV	No. Pullets Lost	No. Pullets In House	SERVICE TO PERFORM	Feed (lbs) Delivered	Daily Feed Inventory	HRS. LIGHT	Water Meter
Fri 8/4/17	29	4 - 1	7.50				1.04				6-1 FEED			8	
Sat 8/5/17	30	4 - 2	7.50				1.07				6-1 FEED			8	
Sun 8/6/17	31	4 - 3	7.50				1.11				6-1 FEED			8	
Mon 8/7/17	32	4 - 4	7.50				1.14				6-1 FEED			8	
Tue 8/8/17	33	4 - 5	7.50				1.18				6-1 FEED			8	
Wed 8/9/17	34	4 - 6	7.50				1.21				6-1 FEED			8	5 WK VAC
Thu 8/10/17	35	5	8.00				1.25				SKIP			8	
Fri 8/11/17	36	5 - 1	8.00				1.28				5-2 FEED			8	
Sat 8/12/17	37	5 - 2	8.00				1.31				5-2 FEED			8	VALBAZEN
Sun 8/13/17	38	5 - 3	8.00				1.34				5-2 FEED			8	VALBAZEN
Mon 8/14/17	39	5 - 4	8.00				1.36				SKIP			8	VALBAZEN
Tue 8/15/17	40	5 - 5	8.00				1.39				5-2 FEED			8	VALBAZEN
Wed 8/16/17	41	5 - 6	8.00				1.42				5-2 FEED			8	VALBAZEN
Thu 8/17/17	42	6	8.50				1.45				SKIP			8	6 WK VAC
Fri 8/18/17	43	6 - 1	8.50				1.48				5-2 FEED			8	
Sat 8/19/17	44	6 - 2	8.50				1.51				5-2 FEED			8	
Sun 8/20/17	45	6 - 3	8.50				1.54				5-2 FEED			8	
Mon 8/21/17	46	6 - 4	8.50				1.56				SKIP			8	
Tue 8/22/17	47	6 - 5	8.50				1.59				5-2 FEED			8	
Wed 8/23/17	48	6 - 6	8.50				1.62				4-3 FEED			8	
Thu 8/24/17	49	7	9.00				1.65				SKIP			8	
Fri 8/25/17	50	7 - 1	9.00				1.67				4-3 FEED			8	

UN-ORGANIZED HEN BARN SHEET



DETAILED BREEDER BARN SHEET

Farm Name		BEST HEN FARM				Complex--> PILGRIMS						Males are Boned				Pullet Farm: SUPER PULLET FARM								
Hatch Date:	1/7/2017	Pullets Moved: 11,500		Breed-----> Ross 708		Comb Status: NO DUB				Pullet House Feeder: PAN														
Date Moved	7/7/2017	Males Moved: 1,100		Feathering: -----> SLOW				Female Grill: 1+ 1 11/16																
Age @ Mov	181 Days (25Wk)	% Males 9.57%		Techservice WILL DELIVER						Inches Feeder Space 4.89 <--Females				Hens Per Nest Hole = 4.3										
Date	Age in Days	Wks Age	Total Eggs	Double Yolks	Cull Eggs	Cracks	Hatch Eggs	Clean Up Time	% Rate of Lay	STD % PROD.	Daily Hen Mortality	Hens on Hand	Daily Male Mortality	Males on Hand	#/100 per day	Daily Feed Hens	Daily Feed Males	Hen BW Guide	Act Hen BW lb	Act. Male BW lb	Spike Males +/-	Water Meter	Egg Weights	Feed Delivered Lbs
Mon 6/26/17	170	24-2								5.00								5.91						
Tue 6/27/17	171	24-3								7.00								5.97						
Wed 6/28/17	172	24-4								9.00								6.03						
Thu 6/29/17	173	24-5								11.00								6.09						
Fri 6/30/17	174	24-6								13.00								6.14						
Sat 7/1/17	175	25.0								15.00								6.20						
Sun 7/2/17	176	25-1								17.86								6.25						
Mon 7/3/17	177	25-2								20.71								6.30						
Tue 7/4/17	178	25-3								23.57								6.35					15.5 hrs.	
Wed 7/5/17	179	25-4								26.43								6.40					4:15-7:45	
Thu 7/6/17	180	25-5								29.29								6.45						
Fri 7/7/17	181	25-6								32.14								6.50						
Sat 7/8/17	182	26.0								35.00								6.55						
Sun 7/9/17	183	26-1								37.86								6.59						
Mon 7/10/17	184	26-2								40.71								6.64						
Tue 7/11/17	185	26-3								43.57								6.68						

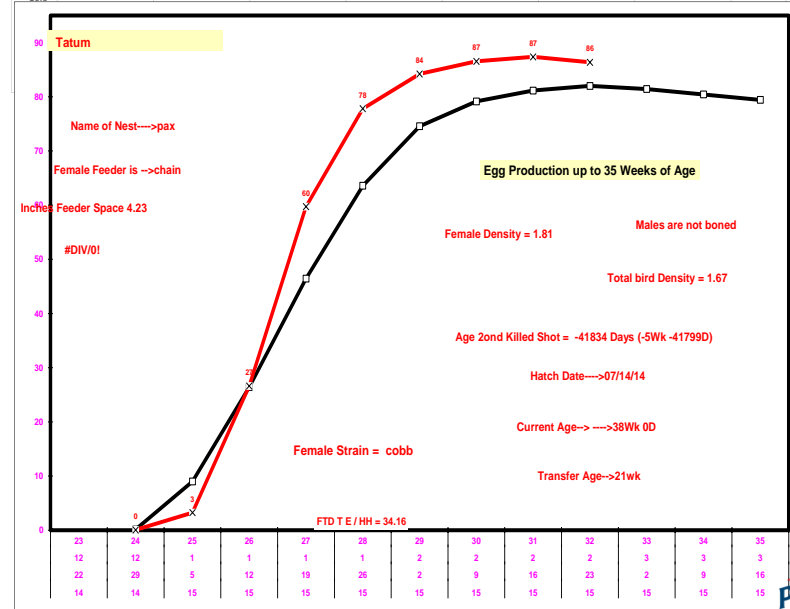
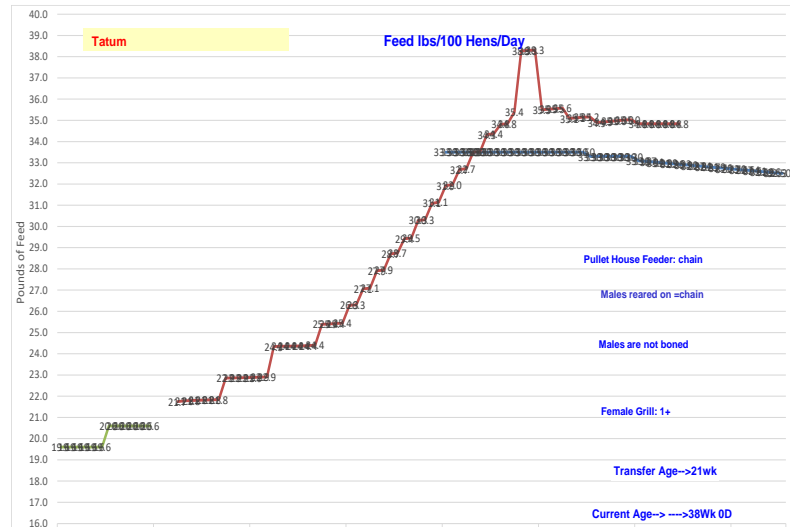
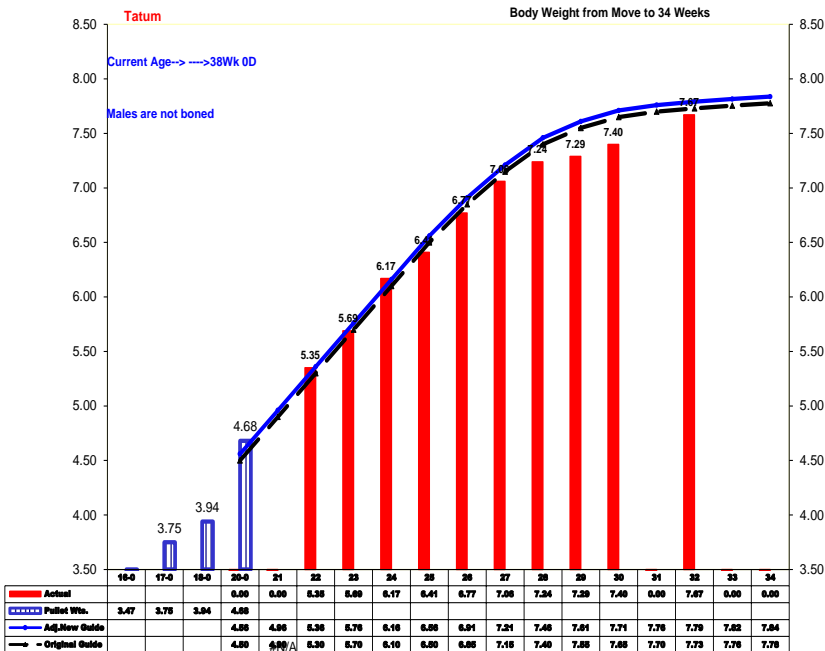
ROOT CAUSE FOR OBESE HENS

- NOT EXECUTING 6-PHASE PROGRAM PROPERLY
- TOO LARGE OF FEED INCREASES DURING TRANSITION FROM PULLET TO HEN HOUSES
- TOO MUCH FEED AT 5% PRODUCTION
- TOO LONG ON “PEAK FEED”
- UNABLE TO MAKE AGGRESSIVE FEED CUTS THROUGHOUT FLOCK BECAUSE WINDOW OF OPPORTUNITY WAS MISSED

PHASE 5

Phase 5 (5% to Peak HEP): Production Feeding

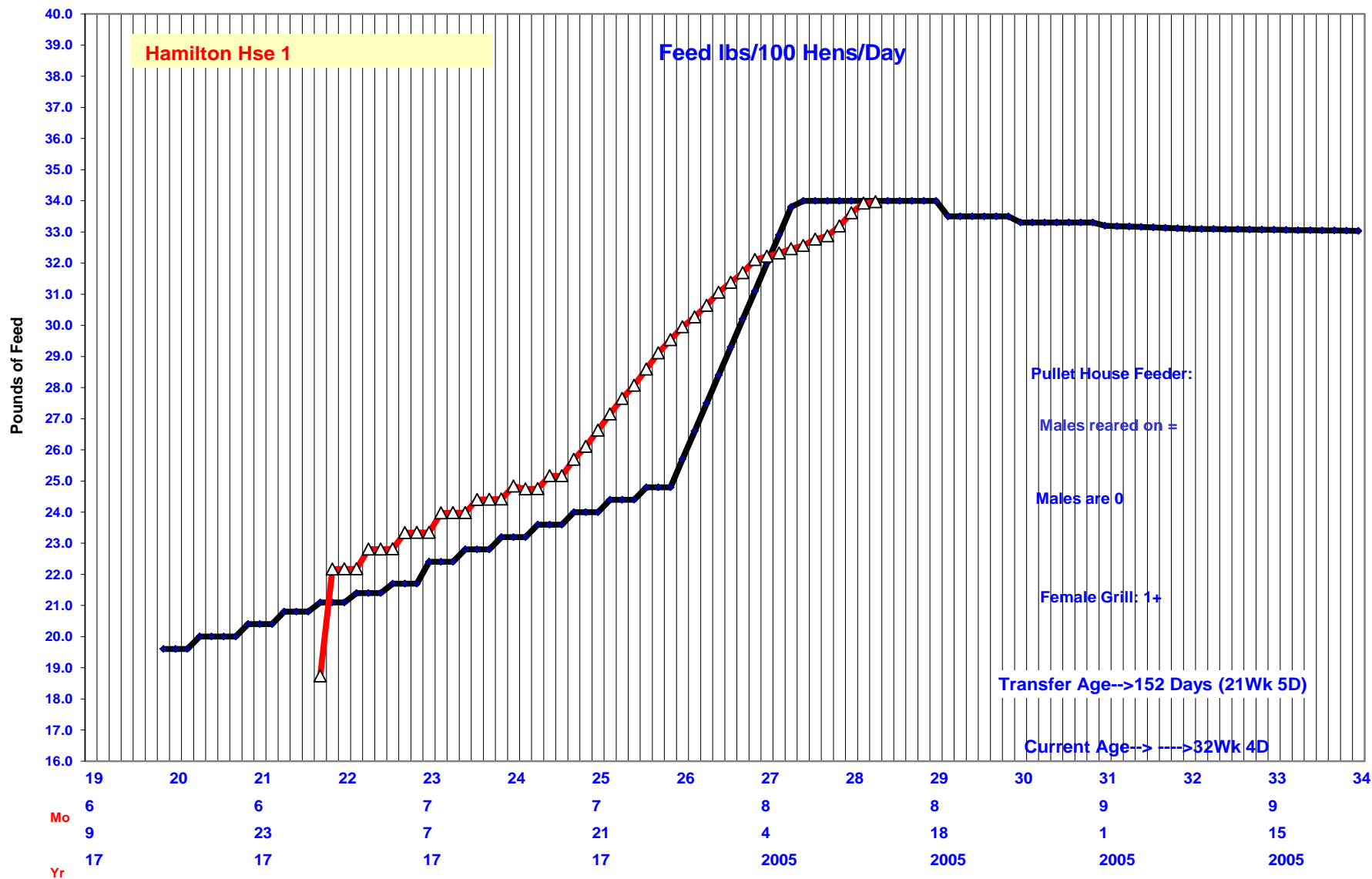
- Setup a plan to increase feed based on HEP
- Be at a "Peak Feed" of 33.5 lbs (+/- 0.5 lb.) at 65% with a Peak HEP of 83%
- If HEP goes above 83%, be ready to boost or challenge feed
- If HEP falls below 83%, remove feed accordingly
- As hens peak, reduce ("cut") feed significantly (may differ for Cobb and Ross)



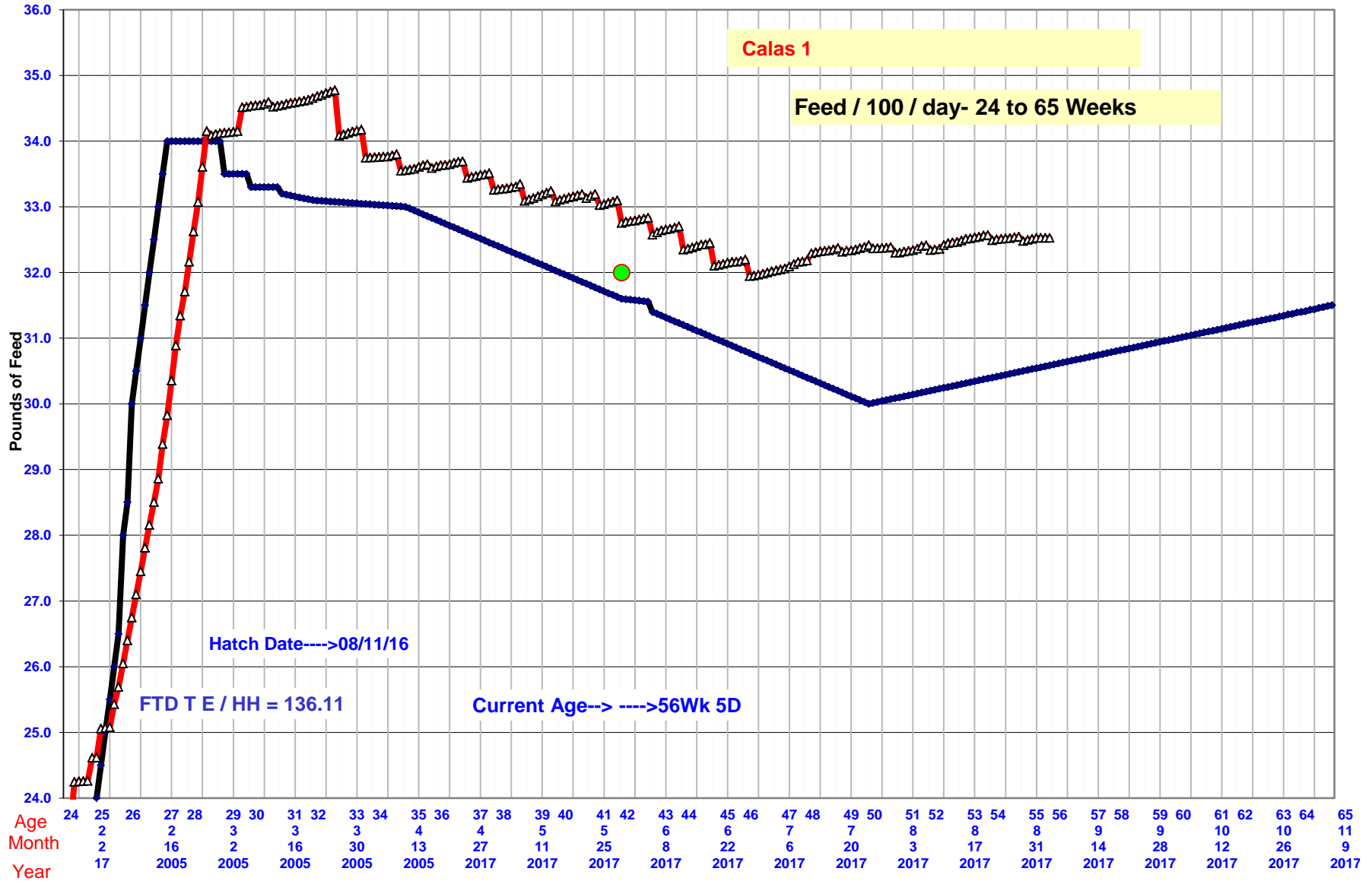
BREEDER FLOCK 6-PHASE SCORE CARD

3%	15%	PHASE 5: (PRODUCTION FEEDING)
1	1	❖ 100 gallons of water per hour between 6:00-9:00 a.m. per 10,000 Hens
1	1	❖ Peak Feed Calorie Requirements Achieved by 70% Production = 450 KCal
1	1	❖ Hens Peaked 9 Weeks after Photo-Stimulation
0	1	❖ Hen Fleshing 2.5 - 3.0
0	1	❖ Feed Dispersment Time = 30-45 Minutes
0	1	❖ Clean-Up Time Maintained at 1 Hour, 45 Minutes or Less
0	1	❖ 30 Week Weight Goal = 7.30 - 7.45 lbs.
0	1	❖ Average Hen Mortality Not Greater than .35
0	7	❖ 1 st Feed Cut of .50#/100 = 12-21 days after starting peak feed amount

FEEDING TOO MUCH, TOO EARLY



MISSING PEAK FEED CUT WINDOW

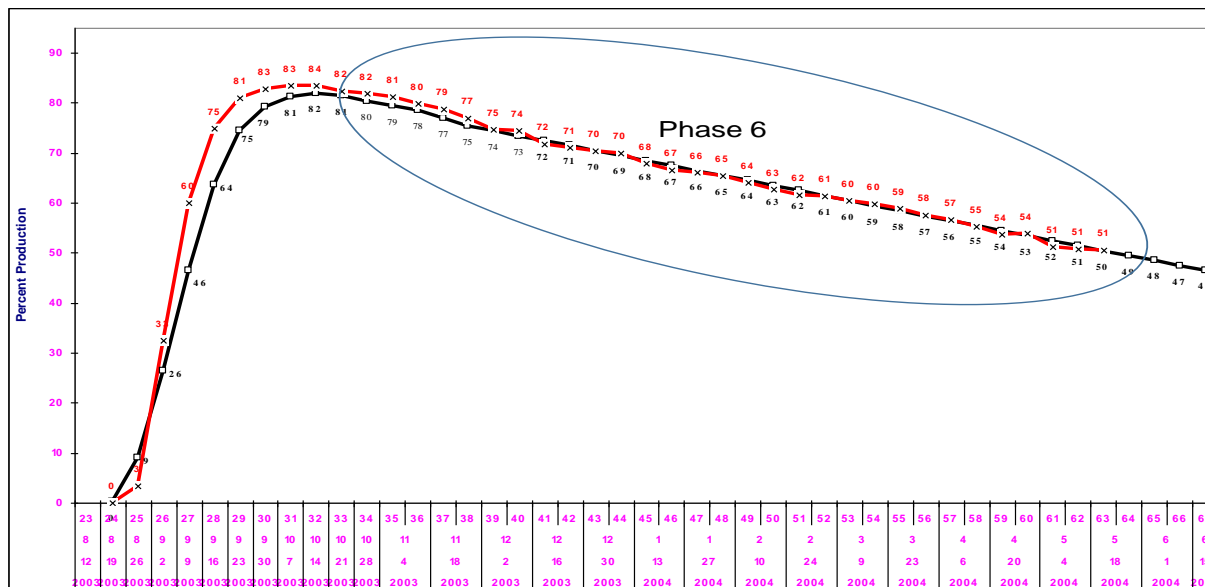


6-PHASE PROGRAM

PHASE 6

In Phase 6, the priority is to maintain persistency of production by keeping the production index (age in weeks + % hatching egg production) above 112.

Post-Peak Persistency (Phase 6) in Hatching Egg Production and Fertility is the Key



Hens need to gain body weight in small increments (0.02 lbs./week). Similarly, egg weight also need to increase gradually. If these two conditions do not occur, there will be greater than expected drop in egg production within a week.

BREEDER FLOCK 6-PHASE SCORE CARD

2%	7%	PHASE 6: (POST PEAK PRODUCTION)
0	1	❖ 2 nd Feed Cut of .50#/100 = 7 days after 1 st feed cut
1	1	❖ Weekly Feed Cuts of .10-.20#/100 unless Production Drops More than 1%
0	1	❖ 45 Week Weight Goal = 7.90 - 8.00 lbs.
0	1	❖ Maintained House Temperature of 68°
1	1	❖ Maintained Cool Cell Pad Air Speed at 350 - 375 ft/min
0	1	❖ Need 8% LOF Mortality for 170 HE/Hen
0	1	❖ Average Hen Mortality Not Greater than .30
20%	100	TOTAL FLOCK SCORE

4+ FLESHED HENS



POOR FEATHERED HENS



RESULTS OF HEAVY HENS

- HIGHER MORTALITY
- HIGHER FEED PER DOZEN
- HIGHER EGG COST PER DOZEN
- LOWER EGG PRODUCTION
- LOWER FERTILITY & HATCH
- LOWER PROFITS



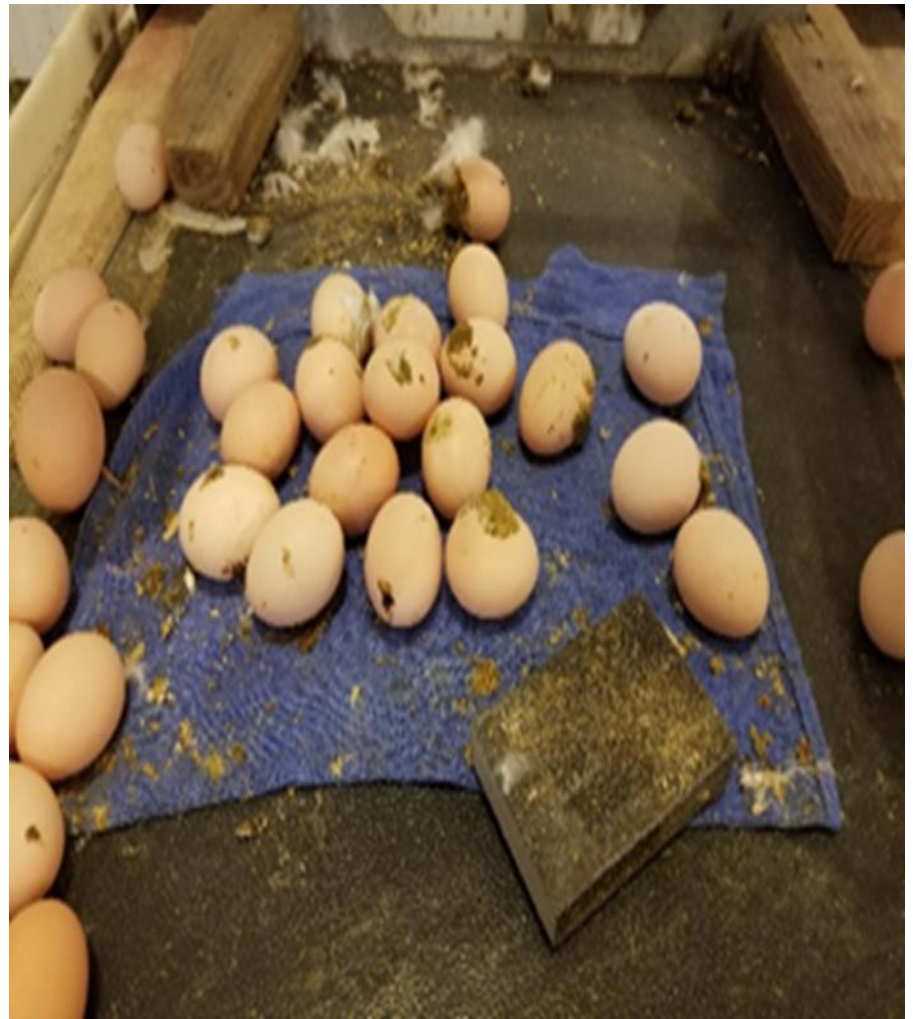
BREEDER FARM DAILY WORK SCHEDULE

TRAIN FARM MANAGERS PROPERLY

BREEDER FARM DAILY WORK SCHEDULE		
TIME	TASK	COMPLETED
4:45 A.M.	1) Start to work 15 minutes before the lights come on	
	2) Check water meters to verify that there are no water problems	
	3) Check clocks	
	4) Check slide gates on feed hoppers	
5:00 A.M.	1) Feed lines come on 10 minutes before lights	
	2) By the time lights adjust feed should have run all the way around	
	3) Continuously run feed lines until all feed is out of the hoppers	
5:15 A.M.	1) Lower male feed line	
5:30 A.M.	1) Set scale slide bar for next days feed amount	
	2) Fill weigh bins for next day's feeding	
6:00 A.M.	1) Walk and check houses to ensure all feed is distributed evenly	
	2) Ensure that there is adequate enough water pressure and no air locks anywhere in water lines	
	3) Verify that ventilation and temperature is adequate	
	4) Check for any broken slats	
	5) Check for any burned out light bulbs	
7:00 A.M.	1) Raise male feedlines	
	2) Weigh up next day's male feed amount	
	3) Run next day's male feed amount	
	4) Verify that feed is evenly distributed for next day's feeding	
7:30 A.M.	1) Record water meters	
	2) Slide weigh bar to zero for next day's feeding	
8:00 A.M.	1) Walk houses and pick up and properly dispose of dead birds	
9:00 A.M.	1) Run egg belts clear of eggs	
11:30 A.M.	1) Walk houses and pick up any floor and slat eggs	
	2) Run egg belts clear of eggs	
12:30 P.M.	1) Break for lunch	
2:00 P.M.	1) Walk houses and pick up any floor and slat eggs	
	2) Run egg belts clear of eggs	
4:15 P.M.	1) Walk houses and pick up any floor and slat eggs	
	2) Push last eggs in nests onto egg belts	
	3) Pick up any dead birds and properly dispose	
	4) Run egg belts clear of eggs	
	5) Check water meters	
5:00 P.M.	1) Wash & Disinfect Egg Tables	
	2) Wash & Disinfect Floor	
	3) Inventory Egg Cooler	
	4) Finish business for the day	
	5) Egg belts should run for 7.5 hours per day	

POOR EGG HANDLING

DIRTY TABLES & SCRATCH PADS



POOR EGG HANDLING

DIRTY EGG BELTS & WORK AREAS



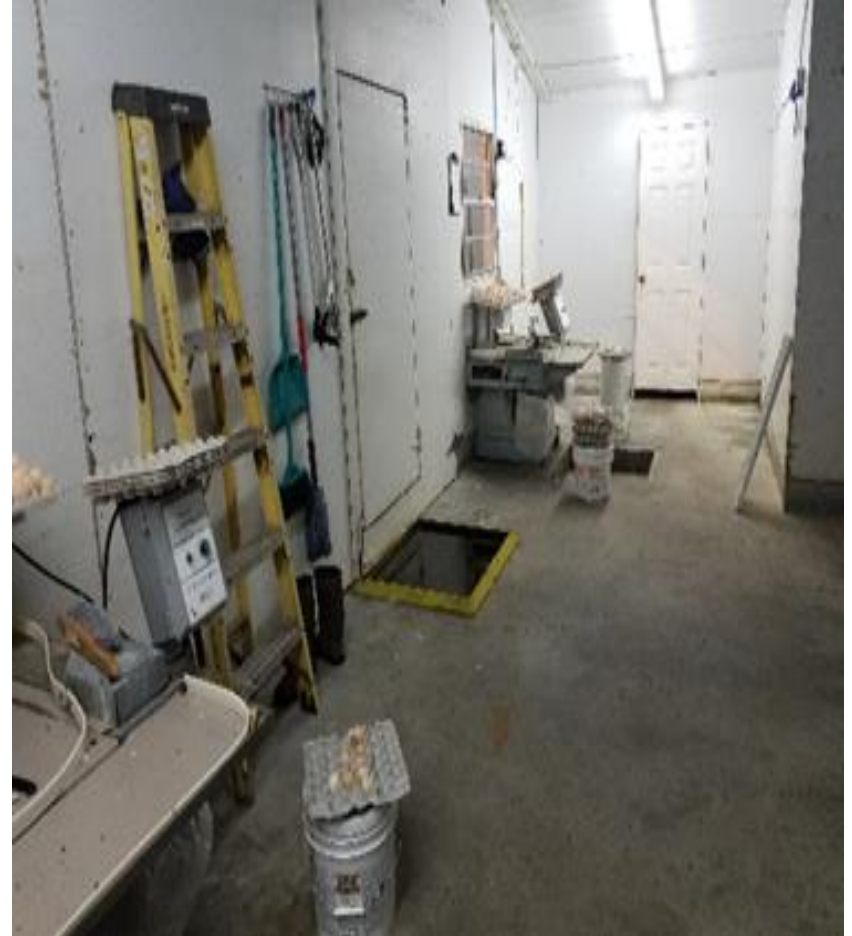
POOR EGG HANDLING

DIRTY WORK AREAS



GOOD EGG HANDLING

CLEAN EGG TABLE & WORK AREA



POOR HEN BARN

TALL SLATS CAUSE HEN MORTALITY



POOR HEN BARN

NO COOL CELLS



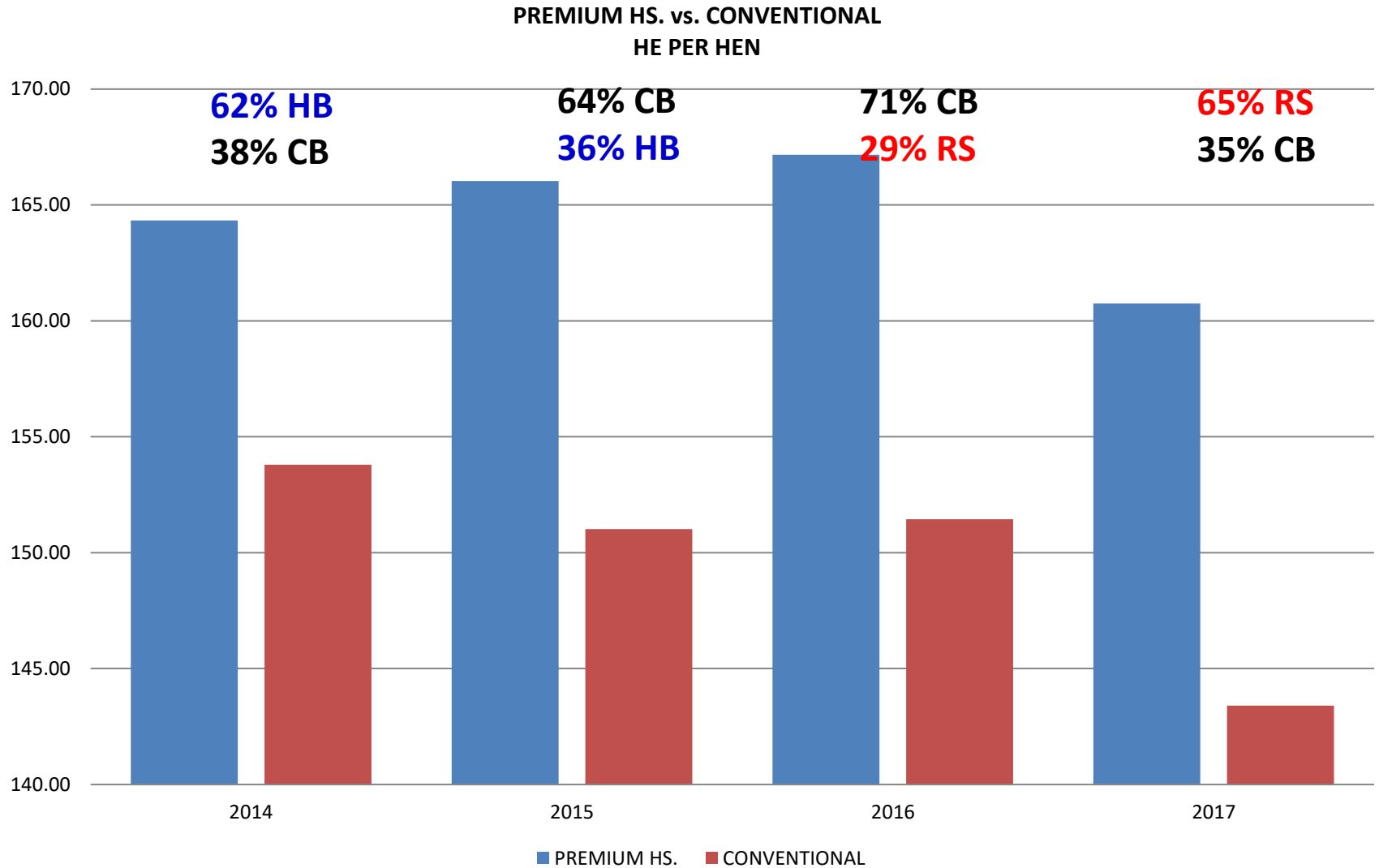
POOR HEN BARNS

OBVIOUSLY A PROBLEM



HE PER HEN

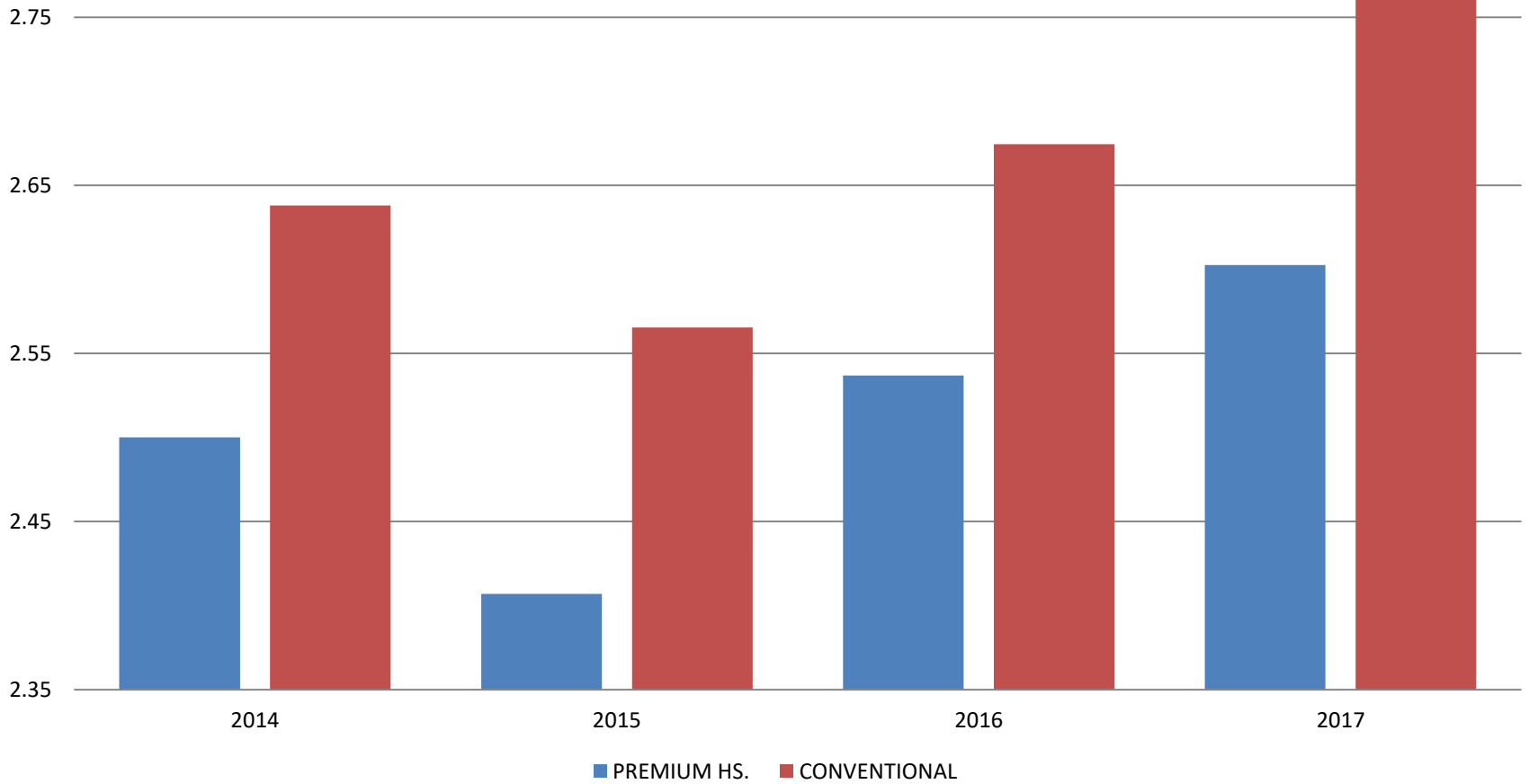
14.66 HE/HEN



COST PER DOZEN

\$.17 PER DOZEN

PREMIUM HS. vs. CONVENTIONAL
COST PER DOZEN



LOW HANGING FRUIT

- PROPER EXECUTION OF 6-PHASE PROGRAM
- UTILIZE AVAILABLE TOOLS
- WORK SMARTER, NOT HARDER
- FEED TEXTURE CONSISTENCY
- PULLET BROODING
- PULLET HOUSE LIGHT INTENSITY
- KEEPING FEED LINES CHARGED FOR PROPER FEED DISTRIBUTION

6-PHASE PROGRAM PROVIDES ONE STOP SHOPPING:

- **DETAILED FARM SHEETS**
- **DETAILED FEED & WEIGHT GUIDES**
- **DETAILED PRODUCTION GUIDES**
- **DETAILED GRAPHS**
- **PRE-PLACEMENT CHECKLISTS**
- **DETAILED SERVICE REPORTS**
- **DAILY WORK SCHEDULE**
- **BREEDER FLOCK SCORECARD**



6-PHASE PROGRAM

