Comment and Response Document
Act 38 Standard Animal Weights Update
2016/2017

Commentators:

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6. Matt Matter
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7. DEP Agricultural Advisory Board
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8. Blair County Conservation District
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11. Michael M. Rubano, P.E.
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13. Bedford County Conservation District
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15. Professional Dairy Managers of Pennsylvania
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16. Blair County Conservation District
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17. Lebanon County Conservation District
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18. Ken Zimmerman
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19. Brent Pollard
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20. Pennsylvania Farm Bureau
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21. Clinton County Conservation District
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22. Department of Environmental Protection
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23. Pennsylvania Cattleman's Association
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25. PennAg
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Animal Weights Comments:

Comment 1: The beef section should be spilt into two categories with the 1st category being "English" breeds and the second category being "exotic" or "European" breeds (1, 22)
Response: The State Conservation Commission (SCC) has considered whether to have British and Continental cattle as separate classes; however, the standard animal weights update provides ranges of weight in each animal class which should adequately cover the differences in weight between the different animal classes. The SCC has concerns that such a separation may simply create confusion and errors regarding whether an animal fits in the British class or the Continental class of cattle.

Comment 2: We agree with the weights and applaud the SCC on staying on top of this issue (2)
Response: The SCC acknowledges this comment.

Comment 3: Tyson just gave me their target weights for their birds (heavy) and they are in line with the current numbers. 5.85 lbs. target weight taking 43 to 44 days (3)
Response: The SCC acknowledges this comment.

Comment 4: Holsteins seem high, I know there are 1,500 Holstein cows out there, but that is the high end. I assume you are shooting for an average weight. That means you are considering that there are Holsteins 1,600 or 1,700 or 1,800 pound Holstein cows out there on a regular basis? I am not so sure about that. I can only speak for the Holstein group – an 800 lb. 1-year-old? Where did this come from? We breed 13-14-month-old heifers that do not weigh that much and we calve at about 24-25-month avg. And a 1,300 lb. 2 yr. old? I do not believe that is the goal of any dairy farmer to have fat calving heifers. (3, 4)
Response: After thoroughly reviewing information and discussing with Pennsylvania specific dairy experts, several changes have been made to the draft weights. One change was to combine Holsteins and Brown Swiss into a group and Guernsey and Ayrshire into a separate group, as in the current weights table. For the Holstein/Brown Swiss group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 50 pounds, average calf weight was decreased by 25 pounds, and average bull weight was decreased by 300 pounds. For the Guernsey/Ayrshire group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 23 pounds, average calf weight was decreased by 15 pounds, and average bull weight was decreased by 200 pounds. Jersey bull weight was decreased by 200 pounds.

Comment 5: Have you run these numbers across each industry? Penn Ag? Holstein Association? Hatfield? Moyer Packing? Pennsylvania Livestock Association? Pennsylvania Sheep & wool grower's association? Etc. I will keep researching this with those in the dairy industry but I would like proof of these changes to be available for public view. I cannot know if these are just updated guesses. (3, 4)
Response: All standard weights were derived from The Pennsylvania State University (Penn State), College of Agriculture species specialists and/or industry sources and those standard weights information was provided to the SCC. Because Penn State is the land grant university for Pennsylvania and is identified as the species specialist, the SCC believes that the weights provided are sound averages. The only exception is that for the duck grouping and weights, the SCC used averages from the leading grower of ducks in Pennsylvania, as the data set for ducks at Penn State was limited.

Comment 6: I find it really odd that just about every weight increased and every lamb, goat and beef calf was weighed to come up with these differences (4)
Response: All standard weights were derived from Penn State species specialists or industry sources and provided to the SCC. Because Penn State is the land grant university for Pennsylvania and is identified as the species specialist, the SCC believes the weights provided are sound averages.

Comment 7: It appears that this effort is to bring more dairy and beef farms into the NM program. (4)

Response: That was not the intent of this update. As discussed in the letter sent to request comments, the SCC was asked to update numbers for the swine and duck industry. Considering that the other species had not be reviewed in several years and since there is a history of updating the numbers and grouping from the program's inception, the SCC determined that it was an appropriate time to update all groupings and average weights.

Comment 8: Most of the poultry, swine and steer operations have the market receipts to document actual weights; however, the dairy and cow calf operations do not have the ability to obtain regular updated weights. Since these two species have significant increases in weight it would appear that there is more potential for them to be reclassified as CAOs and CAFOs. I would suspect that this move is more political than actual so more regulated farms are realized and/or permitted. (4)
Response: As discussed in the letter sent to request comments, the SCC was asked to update numbers for the swine and duck industry. Considering that the other species had not be reviewed in several years and since there is a history of updating the numbers and grouping from the program's inception, the SCC determined that it was an appropriate time to update all groupings and average weights.

Comment 9: Layer weights- what is the concern over being .03 or .05 different? Again, these species should have market weights for documentation and even for new setups the integrator should have established weights to use. (4)
Response: The 0.2 lbs. difference is significant when you look at the number of layers that may be on an operation. All standard weights were derived from Penn State species specialists and provided to the SCC. Because Penn State is the land grant university for Pennsylvania and is identified as the species specialist, the SCC believes the weights provided are sound averages. The SCC agrees that if the farm operation has different weights, such as those from an integrator, then the regulations allow the farm specific weight information to be used.

Comment 10: Will the new pullet and layer production figures take into account the floor birds as well as the caged birds? (4)
Response: The Penn State species specialists considered all production systems when deriving the updated weight numbers. If the farm operation has different weights, such as those from an integrator, then the regulations allow the farm specific weight information to be used.

Comment 11: Will there be two categories to allow for moisture that greatly affect weight? Will the floor bird production and analysis include bedding in the calculation as is now with broilers? How is the average manure produced and book value analysis going to be effected by these weight changes? (4, 7)
Response: Moisture doesn't affect the weight of the bird, but does affect the weight of manure produced. The update pertains to the standard animal weights that can be used for the Concentrated Animal Operation (CAO) calculation. In the absence of actual manure production records, which should be used for every Nutrient Management Plan (NMP) except for startup operations, the NMP spreadsheet used the daily manure production figures from the current Penn State Agronomy Guide. The nutrient concentration of manure (book values) that are utilized in absence of a manure analysis also come from the agronomy guide with a few exceptions, such as

solid swine, coming from Midwest Plan Service as excreted values. Please note that the Penn State Agronomy Guide values are obtained from multiple sources.

Comment 12: The 1,500 lbs. weight makes sense for an average mature cow, but does not fit an entire herd. The Dairy Trend analyzer from the Center for Dairy Excellence shows the Pennsylvania average herd has almost 38% first lactation animals, 28% second lactation and 34% mature cattle. It would be expected that with a 1,500 lb. mature weight that the first lactation animals would be much closer to 1,300 lbs. This trend can be seen with dry matter intake levels on farms where first lactation animals are segregated into a separate group. A weighted average of these levels would bring the average herd weight to a 1,400 lbs. range. (6, 18)
Response: After thoroughly reviewing information and discussing with Pennsylvania specific dairy experts, several changes have been made to the draft weights. One change was to combine Holsteins and Brown Swiss into a group and Guernsey and Ayrshire into a separate group, as in the current weights table. For the Holstein/Brown Swiss group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 50 pounds, average calf weight was decreased by 25 pounds, and average bull weight was decreased by 300 pounds. For the Guernsey/Ayrshire group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 23 pounds, average calf weight was decreased by 15 pounds, and average bull weight was decreased by 200 pounds. Jersey bull weight was decreased by 200 pounds.

Comment 13: The Dairy Trend Analyzer shows that the current average age at first calving is 25.6 months. The corresponding heifer weights with a 90 lb. newborn calf are shown in the first chart. The second chart shows a more ideal growth with an age at first calving of 22 months. The proposed weights of heifers match the ideal growth more than the average Pennsylvania herd numbers. (6, 18)
Response: Please see the SCC's response to Comment 12. After further analysis, for the Holstein/Brown Swiss group, the average heifer weight was decreased by 50 pounds and the average calf weight was decreased by 25 pounds. For the Guernsey/Ayrshire group, the average heifer weight was decreased by 23 pounds and the average calf weight was decreased by 15 pounds.

Comment 14: Some of the animal weights seem really high, per feedback from some of the smaller dairy operations (especially the Holstein numbers). (10)
Response: Please see the SCC's response to Comment 12. For the Holstein/Brown Swiss group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 50 pounds, average calf weight was decreased by 25 pounds, and average bull weight was decreased by 300 pounds. For the Guernsey/Ayrshire group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 23 pounds, average calf weight was decreased by 15 pounds, and average bull weight was decreased by 200 pounds.

Comment 15: Our District Board of Directors are curious as to where the data for the updated animal weights was obtained. Please provide more detail on where the information came from to update these numbers. (10)

Response: Please see the SCC's response to Comment 5.

Comment 16: The letter stated that the SCC and PSU Extension completed a review of the standard animal weights. The data supporting the proposed weight increases and any review/summary documents should be made public to producers and interested professionals. The proposed weight increases should be based on real data from Pennsylvania. (11)
Response: Please see the SCC's response to Comment 5. The SCC does not have the data sets from the Penn State Species experts to share.

Comment 17: There was a trend toward 290 lb. market swine for a brief time as PED virus caused hog inventories to decrease and packers looked for larger animals so volume of product would not decrease at the same percentage as number of animals. Recently I have accumulated a large data set as part of the Chesapeake Bay Program's initiatives to improve background data for the Chesapeake Bay Model. Analysis of this data provides the following animal weights. I suggest utilization of these numbers in the final Standard Animal Weights table. (12)

- Nursery Pigs – 35-pound average (range 13-57 lbs.)
- Wean to Finish - 143-pound average (range 13–273 pounds)
- Grow Finish - 165-pound average (range 57–273)
- Gestating Sow – 450
- Sow and Litter – 470
- Boar – 450

Response: After consulting with Penn State species specialists these weights will be utilized in the final document

Comment 18: Dairy Bulls, all Breeds, average weights are approximately 200 pounds high. (13)
Response: For the Holstein/Brown Swiss group, the average bull weight was decreased by 300 pounds. For the Guernsey/Ayrshire group and Jerseys, the average bull weight was decreased by 200 pounds.

Comment 19: While the cow weights are close to reality on the ground, 2-year-old pull down the average because they grow so much in the 1st lactation, so it might be wise to separate them. It is unclear if the science behind the proposed weights takes into account the fact that the averages are changing with most dairies ceasing the use of rBST in the past few months. (15)
Response: The SCC has chosen to not separate the dairy groups into a new subset of first lactation cows in an effort to keep the calculation simple. However, a farm operator can use different weights, such as actual animal weights from farm scales, etc. to document different weights than those published by the SCC. For the Holstein/Brown Swiss group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 50 pounds, average calf weight was decreased by 25 pounds, and average bull weight was decreased by 300 pounds. For the Guernsey/Ayrshire group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 23 pounds, average calf weight was decreased by 15 pounds, and average bull weight was decreased by 200 pounds.

Comment 20: Dairy – Holsteins. Milk cows: no more than 1,400 lbs.; Heifers 1-2 yr.: No more than 975 lbs.; Calf 0-1: No more than 400 lbs.; Bull: No more than 1750 lbs. (16)

Response: For the Holstein/Brown Swiss group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 50 pounds, average calf weight was decreased by 25 pounds, and average bull weight was decreased by 300 pounds. For the Guernsey/Ayrshire group, the average cow weight was decreased by 50 pounds, average heifer weight was decreased by 23 pounds, average calf weight was decreased by 15 pounds, and average bull weight was decreased by 200 pounds.

Comment 21: Jersey: all categories should not keep old weights (16)
Response: The Jersey weights were increased. The average cow weight was increased by 100 pounds, average heifer weight was increased by 75 pounds, average calf weight remained constant, and average bull weight was increased by 200 pounds.

Comment 22: Beef: Bull: Should stay with 1,500 lbs. (16)
Response: The beef bull weight will remain at 1,500 lbs. Pennsylvania is different as compared to the average commercial breeders in the cow calf sector across the US. Many of the smaller herds in Pennsylvania will use bulls of a younger age, mostly yearlings; additionally, these bulls are used for a shorter breeding lifespan as compared to the larger commercial breeders. Many of these bulls will be marketed after they are used for approximately 3 breeding seasons. They have then out lived their genetic usefulness in a smaller cow herd. Inbreeding challenges become the limitation for the owner. Selling these bulls at a younger age simplifies the genetic management for producers with smaller cow herds. Knowing that bulls will continue to grow until they attain the age of 5 or 6 yrs. old. The Pennsylvania bulls will be marketed prior to attaining full mature weight. The 1,500 lbs. average weight should be representative of the Pennsylvania bull Category across the useful life of the herd bull.

Comment 23: Poultry: There needs to have a new category added Breeder-Layers and Breeder - Broilers. We have breeder operations moving into our area. We have done some research on breeder birds and base our comments on the information we have obtained from Ross Breeders. Poultry – Breeder layers – Hens 20-62 weeks 5.83 lbs. (4.35 – 7.31); Roasters 20-62 weeks 8.7 lbs. (6.7 – 10.69); Breeder Broilers – Hens 6.7 lbs. (5 lbs. – 8.4 lbs.) and Roosters 8.25 lbs. (6.5 lbs. – 10 lbs.). (16, 20, 22)
Response: The two identified categories have been added.

Comment 24: In Lebanon County, a common animal group is broilers (0-42 days) with a finished weight of 6.0 lbs. (17)
Response: Since the standards weights are used throughout the Commonwealth of Pennsylvania, the groupings were left the same. If the farm operation has different weights, such as those from an integrator, then the regulations allow that farm specific information to be used.

Comment 25: Has recent research been conducted to support, for all animal species, an animal density greater than 2.0 represents inadequate acres for manure application (i.e. poultry vs. dairy)? (17)
Response: The SCC acknowledges this comment. However, this comment is outside the scope of this specific guidance. The Act 38 law and regulations provide the 2.0 AEU/acre threshold.

Comment 26: I do believe that on many farms your proposed book value for Holstein cows is possibly true, they just are not on my mine, because we have intentionally selected our Holsteins to be smaller and more efficient. You might also wonder why an Illinois farmer might comment, but I do believe states like mine that have a smaller dairy industry will look to larger dairy states like Pennsylvania for guidance on their rulemaking in the future. I am just asking you to consider the option of farm specific plans based on that farm's animal weight to determine the size on an animal unit equivalent if they can document it. (19)

Response: The SCC appreciates the comment. Please note that 25 Pa. Code § 83.262(a)(1)(i) of the Act 38 regulations states:

> "……. Other animal weights may be used in place of those in the Commission guidance, if there is sufficient documentation to support their use…"

As part of this regulation, any operation can use farm specific weights (using scales, or some other approved method) to justify farm specific weights that may differ from the published SCC animal weight guidance.

Comment 27: Research was conducted to obtain current livestock weights that are currently being employed by neighboring universities and agricultural industries. Comparisons were made between the livestock weights listed by the SCC on the Standard Animal Weights Proposed Changes and outside sources and are presented below listing those instances where a variance occurred.

A Comparison of Farm Livestock Weights

DAIRY	**SCC Revised Standard Weights**	**Weights from Universities and Industry**	**Slaughter Weights New Holland Sales**
Ayrshire			
Cow	1250 lbs.	American Dairy Assoc. 1200 lbs.	
Heifer (1-2 yr.)	650-1125 lbs.	Canadian Journal of Animal Science 621 lbs.-1143 lbs.	
Calf (0-1 yr.)	80-650 lbs.	Keeping a Family Cow, Canadian Journal of Animal Science 72 lbs.-621 lbs.	
Bull	1800 lbs.	Pets on Mom.me 1600 lbs. or more	
Guernsey			
Bull	1800 lbs.	Livestock Available Online 1430 lbs.	
SWINE			
Wean to Finish lbs.	15-290 lbs.	USDA/Purina pig weights 15-277 lbs.	250-300 lbs.-av. 275
Grow Finish lbs.	50-290 lbs.	Virginia Tech 50-277 lbs.	250-300 lbs.-av. 275
Sow and litter	470 lbs.	National Hog Farmer & New Holland Sales	

443 lbs.

POULTRY

Layer 14-75 weeks	2.82-3.44 lbs.	Hy-line International 2.75-3.48 lbs.
Layer 18-90 weeks	2.82-3.46 lbs.	Hy-line International 2.75-3.50 lbs.
Pullet, brown egg 0-16 weeks	.08-3.0 lbs.	Hy-line International .06-3.01 lbs.
Broiler, medium breed	.09-5.0 lbs.	USDA Broiler Market Report .09-3.44 lbs.
Roaster male 0-7 wks.	.09-8.6 lbs.	Raising Cornish Cross Chickens 6.6 lbs. at 7 wks.
Roaster female 0-9 wks.	.09-9.8 lbs.	David Laatsch, ag education .09-8 lbs.
Turkeys, hen brooder 0-6 weeks	.12-5.25 lbs.	Purina Feeds .12-5.10 lbs.
Duck, laying	6.85 lbs.	NC Extension 6.5 lbs.

BEEF

Calf: 0-8 months	100-550 lbs.	Virginia Tech 100-517 lbs.
Backgrounding cattle	550-800 lbs.	Virginia Tech 517-725 lbs.
Replacement heifer: 8 months to 1 year	550-850 lbs.	Virginia Tech 517-760 lbs.
Bull	1800 lbs.	Virginia Tech 1500-1900 lbs.-av. 1700 lbs.

1100-2300 lbs.av.-1700 lbs.

ALPACA

Young	15-145 lbs.	Average weight from 20 farms 17-73 lbs.

SHEEP-LARGE BREED

Ewe	225 lbs.	American Sheep Industry Assoc. 140-220 lbs.-av. 180 lbs.
Ram	300 lbs.	American Sheep Industry Assoc. 270 lbs.

SHEEP-SMALL BREED

Lamb 0-1 year	10-150 lbs.	Purdue University 9-146 lbs.
Ewe	175 lbs.	American Sheep Industry Assoc. 110-185 lbs.-av. 148 lbs. 120-300 lbs.-av. 210 lbs.
Ram	225 lbs.	American Sheep Industry Assoc. 180 lbs. (20)

Response: All of this information was considered and the data which the SCC thought was applicable was forwarded to the species specialists at Penn State for their consideration in the weights that appear in the final guidance for SCC approval. Some weights were not forwarded, for example if the research was from a non-peer reviewed website, such as Raising Cornish Cross Chickens or Pets on Mom.me, or from university research that is not applicable to Pennsylvania production or the Mid-Atlantic region.

Comment 28: Animal weights submitted by agricultural producers serving on the Agricultural Advisory Board subcommittee on the proposed changes to Standard Animal Weights that are based on farm documented weights should be utilized to improve the accuracy of the final revised Standard Animal Weights. (20)
Response: This information was forwarded to the species specialists at Penn State for their consideration in the weights that appear in the final guidance for SCC approval.

Comment 29: Extensive research indicated that key dairy personnel in the Penn State Department of Dairy and Animal Science were not directly consulted to help determine the growth and production phases of the five dairy cattle breeds listed in the SCC draft of Standard Animal Weights. An outreach to Penn State University should be conducted to verify all dairy cattle weights before the document is adopted for nutrient management planning. (20)
Response: The SCC contacted several Penn State dairy specialists at the Penn State University Park Campus for input on the animal weights. The SCC only received responses from two dairy specialists. The other specialists who did not respond were carbon copied on the responses received from the two dairy specialists. Please note that the dairy groupings and weights have been adjusted.

Comment 30: Weight reductions should be considered for certain species of livestock listed above which include Ayrshire and Guernsey dairy cattle, wean to finish and grow finish swine, sow and litter weights, poultry layers, pullets, broilers and roasters, turkeys, ducks, beef cattle of various ages, young alpacas, large breed ewes and various classes of small breed sheep before giving final approval to the document. (20)
Response: Please see the SCC's response to Comment 12. Please note several changes (decreases and increases) have occurred from the original weights sent out for comment and the final weights for SCC approval.

Comment 31: It would be beneficial to have the final version of the Standard Animal Weights brought before the DEP Agricultural Advisory Board and the SCC Nutrient Management Advisory Board prior to adopting the document for nutrient management purposes. (20)
Response: SCC staff intends to review the final version of the updated Standard Animal Weights with both the DEP Agricultural Advisory Board and the SCC Nutrient Management Advisory Board, before seeking SCC approval.

Comment 32: Using these tables is easier than using actual animal weights data, so these table updates should be accurate. (22)
Response: Please see the SCC's response to Comments 12 and 26.

Comment 33: With Holstein Cow, the weight is generally closer to 1,450 lb. (22)
Response: The average Holstein cow weight was reduced to 1,450 pounds.

Comment 34: With Holstein Heifer 1-2 yr., the weight should be 1,000 lb., and not 1,050 lb. (22)
Response: The average Holstein heifer weight was reduced to 1,000 pounds.

Comment 35: With Holstein Calf 0-1 yr., the weight should be 360 lb., and not 445 lb. (22)
Response: The average Holstein calf weight was reduced to 420 pounds

Comment 36: The high end of the weight for Swine, Wean to finish and Grow to finish should be 275 lb. (22)
Response: The average final weight used was 273 lbs., per the Penn State swine specialist.

Comment 37: We are writing to urge the State Conservation Commission to consider maintaining the *initial* animal weights listed in the chart below for all beef types at the standard weight during production levels. (23, 24)

Type of Animal	Standard Weight (lbs) during Production (range)
Beef	
Calf: 0–8 mo.	~~300~~**325** (100–~~500~~**550**)
Backgrounding Cattle	**675 (550-800)**
Finishing: 8–24 mo.	~~950~~**975** (~~500~~**550**–1,400)
Replacement Heifer: 8 mo.-1 yr.	**700 (550-850)**
Replacement Heifer: 1-2 yr.	**1025 (850-1200)**
Cow	1,400
Bull	~~1,500~~**1800**

Response: After another review of the proposed changes to the standard animal weight table, there was sound USDA data to support holding the printed weights constant to those reported in the previous printing of the table. The initial thought, based on the national trending change in weights of animal units across the US, was that a mild increase might be appropriate. However, following further review and the release of the most recent USDA, National Agricultural Statistics Service (NASS) report, Animal weights in PA are trending lower as compared to previous time periods in the state. For example, average commercial slaughter weights in PA have decreased by 18 lbs. per head, and per calf slaughter weights are lower by approximately 22%. All of the cattle weights are trending downward even while the total number of animals being harvested in PA has increased in both categories.

Comment 38: Unfortunately, the proposed weights do not represent the current trends in Pennsylvania's beef industry and should ***not*** be considered. The slaughter report generated by USDA on December 28, 2016, clearly shows a decline in slaughter weights of finished cattle in Pennsylvania and neighboring states. Pennsylvania is first in the nation for marketing finished beef through small scale slaughter facilities. Thirty-eight percent of our cattle are traded at live cattle weights and finished for the retail freezer beef markets. These cattle weigh less than

cattle finished for the commercial packing industry and this must be considered in your determination. The December 2016 USDA slaughter report for Pennsylvania shows the beef slaughter live weight to be down 18% from one year ago at 1,217 lbs. Calf slaughter live weight was down 8 lbs. at 428 lbs. The use of these weights at the high end would significantly impact the revised weights listed above. (23, 24)
Response: Please see the SCC's response to Comment 37.

Comment 39: Adjusting the calf weight should also be considered. Using an average gain method of 2 lbs. for a grass and milk-fed calf weaned at six months of age, the average weight is 435 lbs. This is calculated at 2 pounds per day gain on a 75-pound calf. (6 mos. X 30 days X 2 lbs. = 360 lbs. add an additional 75 lbs. for the live calf = 435 lbs.). Age and gain are important in this equation and defining each category is imperative to calculating an accurate average weight for each group. (23, 24)
Response: After further review, it was determined that the previously printed beef weights will remain. The replacement heifers 8 mos. to 1 yr. need to start at the average weaned calf age and weight of 8 mos./ 300 lbs. of the weaned calf previously identified and increase to one year of age with a weight range of 300 lbs. to 700 lbs. similar to the stocker category. The replacement heifers 1 to 2 yrs. of age will begin at the average weight of 500 lbs. for the 8 mos. to 1 yr. of age heifers above with a range of 500 lbs. to 1050 lbs. This would allow the heifers to attain the recommended 75% to 80% of mature weight prior to calving.

Comment 40: The proposed changes do not represent Pennsylvania's industry and would add more CAFO's to the beef industry if implemented. (23, 24)
Response: After further review, the beef weights that were previously represented will continue to be used.

Comment 41: The following are specific comments from PennAg members based on the proposed changes to the animal weights. (25)

Type of Animal	SCC proposed change	PennAg's recommendation based on actual PA
Broiler - large 0-53 days	4.0 -8.0	1. Broilers are growing 5.50-5.60 lbs. in average of 42-49 days
Broiler - medium 0-35 days	2.5-5.0	2. The top weight of a broiler is 7 lbs. – anything bigger than that is classified as a roaster. 3. 4 lbs. are a high number for the weight – it is actually more in line with lbs./bird/year. 4. There is no category for Broiler weights – this is a section which needs included as there are farms in PA raising broiler breeders.
Laying Hens (white)	18- 75 wks./18-90 wks.	At 16 weeks – the target weight of

		hens is 2.65 lbs. (not 3.13 as referenced in the sec draft). At 40 weeks - the target weight is 3.37
Laying Hens (brown)	18-75 wks./18-90 wks.	At 16 weeks – the target weight is 3.00 lbs. (not 3.85 as referenced in the At 40 weeks –the target weight is
Turkey – male 0-6 weeks	3.31 lbs.	6.47 is the target weight for a 6-week old Tom.
Turkey - male – 6-18 weeks	25.25 lbs. (6.5-44 lbs.)	43.70 is the target weight for an 18 week old Tom
Turkey - female 0-6 weeks	2.69 lbs.	4.70 is the target weight for a 6-week old female.
Turkey – female – 6-16 weeks	14.13 lbs. (5.25-23 lbs.)	Target weight for an 18-week old female turkey is 29.20 lbs.
Pheasants – growing and mature	1.53 – 3 lbs.	Average mature weight is 2.35 lbs. An average growing weight is 1.20 lbs.

Response: The SCC appreciates the research that was completed. The information was forwarded to the species specialists at Penn State for their consideration in determining the weights that appear in the final guidance for SCC approval.

Comment 42: With the change in animal weights will the SCC staff be adjusting the manure production assumptions as well? It is important that actual data be used as much as possible instead of defaulting to numbers such as those provided by Midwest Plan Service and others. (25)

Response: In the absence of actual manure production, which should be used for every NMP except for startup operations, the NMP spreadsheet used the daily manure production figures from the current Penn State Agronomy Guide. The nutrient concentrations of manure (book values) that are utilized in absence of a manure analysis primarily are taken from the Agronomy Guide, while a few, like solid swine, are taken from the Midwest Plan Services as excreted values. Please note that Agronomy Guide table values are derived from multiple sources.

Animal Grouping Comments

Comment 43: What is backgrounded cattle? I have never heard of that, from the weight group shown it would appear that you are describing "feeder cattle" (4)

Response: The backgrounded cattle are weaned calves that will go either to a forage based ration or direct to grass. Many feedlot operators are interested in buying these calves in the low 700 lb. range. Hence an average weight of 500 lbs. should be an appropriate estimate for this group. The new backgrounding category will be adjusted to better reflect the industry standard wt. of 300 lbs. to 700 lbs. pounds with an average weight of 500 lbs.

Comment 44: Broiler weights- I have never worked with the proposed 53 and 35 day cycles. Where is the 42-day category that is so prevalent with the industry? The range may be 40 to 44 days and the weight about 2.7 but I don't see that listed. (4)

Response: Please see the SCC's response to Comment 5. The commentator raises a valid point that if the farm operation has different weights or cycles, such as those from an integrator, the regulations allow farm specific information to be used.

Comment 45: Why would we put background cattle in and still leave finishing cattle as 8 to 24 months? (5)
Response: Backgrounding cattle are those weaned calves that are placed on grass or forage based rations, for cheap weight gain, before they become finishing cattle. The new backgrounding category will be adjusted to better reflect the industry standard wt. of 300 lbs. to 700 lbs. pounds with an average weight of 500 lbs.

Comment 46: What category would you put the replacement bull calf if they are raising them? (5)
Response: Replacement bulls will be shown in the bull category

Comment 47: A request for additional animal types to be added. Perdue is building Breeder laying houses. I would request that new animal types be added to reflect these birds. The two types would be under Poultry and could be listed as: Layer, Breeder Hen and Layer, Breeder Roosters. I have been researching ages and weights for these types and have gotten several different answers. I have sent an e-mail request to Perdue for ages and weights and am waiting for a response. But from talking to producers, it looks as if the birds are moved in at 20-21 weeks and removed at 62-64 weeks. Using a weight table for a commercial Breeder (Ross) I have determined that the average weight for hens will be around 6 lbs. (4.6-7.4 lbs.) and for the Roosters around 9 lbs. (7-11 lbs.). The final avg. will be determined by the actual age the birds are moved in and out. These birds gain 17 g and 30 g per week. I have seen some of the AEU calculations coming in for these operations using the laying values at 3.1 lbs. As you can see, this is half of what these breeders weigh. In my initial discussion with Perdue several years ago, they stated that the average weight of the birds is 6 lbs. If I hear from Perdue, I will let you know what numbers they provide to me. I know that they use to use Ross Breeds so that is why I went with the weight information from that company. I am anticipating receiving a NMP for one of these farms that will be a CAO. I know in the OMP they used 3.8 and 3.6 lbs., which again is way under the actual weights. Running a quick calculation using the 6 and 9 lbs., the AEU calculation for this one house is off my 35.3 AEU's (54.42 vs. 89.75) or a 65% increase. This can be significant in that a lot of the farmers looking at these operations are smaller farms and could be CAO's when the actual breeder weights are used. (8)
Response: Two categories have been added: layer, breeder hens and layer, breeder roosters.

Comment 48: Please add a timeframe to "Backgrounding Cattle" (e.g. 5-8 months?). How are backgrounding cattle different than finishing cattle? (10)
Response: Backgrounding cattle are those weaned calves that are placed on grass or forage based rations, for cheap weight gain, before they become finishing cattle. The new backgrounding category should be adjusted to better reflect the industry standard weight of 300 lbs. to 700 lbs. pounds with an average weight of 500 lbs.

Effective Date Comments:

Comment 49: Has any research or random sampling been done with existing plans to see how many new CAOs and CAFOs would be created? Permitting time may be a factor in this decision for CAFOs. It would appear that any existing CAO would just have a higher AEU/acre so the real issue is how many farmers are going to redo their AEU calculation and when. Any non-CAO would have to be educated on the new weights and categories and if it follows the time frame and pattern set by Manure Management compliance it will take a large effort by state and county staffing to get all those into compliance. Oct 1, 2018 may be a consideration for start date because by the time the info is published it will take all of 2017 for farmers to take note and then it will be too late to submit a 2018 plan. (4)
Response: To date, the SCC has not conducted research or random sampling to determine how many new CAOs or CAFOs would be created. The SCC is proposing a phase in period for the new standard animal weights.

Comment 50: The changes should become effective at the beginning of the NMP fiscal year / crop year. (9, 14, 22)
Response: The SCC is proposing a phase in period for the new standard animal weights.

Comment 51: The proposed changes should allow extra time for affected operations to comply (11, 22)
Response: The SCC is proposing a phase in period for the new standard animal weights.

Comment 52: The proposed changes could become effective in October, 2017 but should allow for ample time for operations to comply (15, 17)
Response: The SCC agrees that ample time must be given for operations to come into compliance. The SCC is proposing a phase in period for the new standard animal weights.

Comment 53: Proposed changes should be effective beginning Jan 1, 2018. Unless the new proposed weights are adopted by around March 2017, it will be too late for planners to use the new values in 2018-2020 crop year plans that are under development. If the new weights are effective after Jan 1, then the planners have adequate time to incorporate the new values into plans starting in the 2019 crop year. (21)
Response: The SCC is proposing a phase in period for the new standard animal weights. This period will allow ample time for planners to use the new values for the 2020 crop year plans, which will be the first crop year for which the new values apply.

Comment 54: The whole planning and approval process takes about two years, so if these changes result in an operation becoming a CAFO that should be accommodated in the phase-in process, such as beginning with the permit renewal. (22)
Response: The SCC is proposing a phase in period for the new standard animal weights that will provide ample time for the planning and approval process to be completed.

Comment 55: Understanding the process of meeting schedules as well as notification periods, it would be our recommendation for the following:

a. December 2016 – comment period ends

b. July 2017 – comments and draft guidance be presented to the State Conservation Commission members for their consideration of action
c. July 2017 -July 2020 – would serve as a 3-year phase in of the changes in animal weights to allow plans to be updated per their normal update process verses having to pay to have a new plan crafted based on the action of the State Conservation Commission in July 2017. (25)

Response: The SCC is proposing a phase in period for the new standard animal weights.

Bringing New Weights into Existing NMPs comments:

Comment 56: When any plan is up for renewal. For any existing NMP and CAO the manure generation is not going to change because of these numbers. So any plan change is really the AEU calculation and the App 4 and 5 will be the same. (4, 21)

Response: The SCC agrees. For existing CAOs, the new weights will be incorporated into the NMP when the NMP is updated or amended.

Comment 57: The new animal weights should have a delayed effect. Existing NMPs should be exempt from change until they are voluntarily amended due to management changes or until the plan is updated with new crop years. Implementing these animal weights on existing plans could wreak havoc on plan writers who are for the majority already overwhelmed. (9, 17, 20, 21)

Response: Please see the SCC's response to Comment 56.

Comment 58: From an Act 38 standpoint and existing operations, I would give a definitive date (likely October 1 of a given approval year). For example, let plan writers and farmers know by January 1, 2017 that any plans that expire on/after October 1, 2017 need to be considered and written for the new animal weights. So, for those whose plans will expire on October 1, 2017, we can begin notifying their plan writers (who likely haven't started the new NMP's by January 1, 2017) to utilize the new animal weights when writing the 2018 and later crop year NMP's. For those who have plans that are valid through 2019 (1 year with updates, or 3 year plans), they should be 'grandfathered in' and should utilize the updated numbers at their next plan update (not amendment, if 1-year plan), once current plans expire. (10)

Response: Please see the SCC's response to Comment 56.

Comment 59: When existing CAOs and CAFOs are required to update their NMPs after October, 2017, the proposed new animal weights should be used. Previously non-CAFO and non-CAOs that have a regulatory status change due to the increased weights should have additional time (11, 15, 20)

Response: Please see the SCC's response to Comment 56.

Comment 60: Existing plans should be grandfathered then upon renewal the plans could be revised with the approved standard weights. The workload would be overwhelming if all plans had to be revised by a specific deadline. (13, 14, 20)

Response: Please see the SCC's response to Comment 56.

Comment 61: The current requirement for a new CAO to compete a nutrient management plan prior to the commencement of manure operations should be waived when the farm has been reclassified as a CAO due to revisions to the animal weights. The State Conservation Commission will need to identify the most effective methods of outreach to alert livestock producers that incorporating the new animal weights may reclassify their livestock operation as a CAO or CAFO that will incur additional costs for a nutrient management plan and other expenses associated with additional livestock permitting obligations. (20)
Response: New CAOs (new construction) need to have a NMP before the commencement of operations. This requirement is provided in the regulations under 25 Pa. Code § 83.261. Existing animal operations that become CAOs due to the new standard animal weights will have a phase in period between the date the new standard animal weights are approved and become effective for all NMPs, unless farm specific weights are utilized.

Comment 62: How these changes could affect CAFOs should be closely coordinated with DEP. (22)
Response: The SCC agrees with this comment.

Comment 63: Existing NMP's would be updated using the July 2017 animal weights when the 3-year plan update became due. Now, this would not hinderan existing NMP from using actual farm data (such as animal weights) in the NMP update. Therefore, a farm would not be required to use these numbers if the farm had their own data and supporting documentation on animal weights/ages/etc. (25)
Response: The SCC agree with this comment.

Comment 64: We would expect the SCC Staff to properly instruct Conservation District as well as DEP Staff and Planners that a farm's plan (NMP/CAFO/etc.) is not "out of compliance upon a July 2017 action by the Commission but instead properly instruct Conservation District staff as well as DEP staff and Planners that the farm plan/permit will be updated accordingly when said plan is due for an update. This will prevent farmers from having an unnecessary expense. (25)
Response: Conservation District, DEP, and SCC staff will be given ample direction on the "roll out" and implementation of the new standard animal weights.

Existing CAO and CAFO Determination Comments:

Comment 65: If someone can be removed from the CAFO permit or CAO designation then I think they should be allowed to take advantage of the regulations that apply to them. I believe a lead-in time is necessary and would mirror the lead in time that was allowed for P index management for scores over 100 points when it was introduced. However, to require an extended phase out time to be removed from the program when the AEU/acre changes would not be fair and may not be legal. If someone now in the NM Program reduces the herd by 50 cows or 300 swine, they certainly would not wait to call their plan writer and amend the current plan. (4)
Response: The commentator is correct, if an entity is no longer a CAO, then that entity may withdrawal from the program immediately, if the entity so chooses.

Comment 66: The new weights should be instituted immediately concerning us at a District level (because they could drastically change any initial CAO calculations that are done.) (10)
Response: Once the new standard weights are approved, they will need to used immediately for CAO calculations related to operations that did not previously exist. Existing CAOs and existing operations that became CAOs as a result of the new standard animal weights will have a phase in period for when the NMP would need to be submitted for review.

Comment 67: Existing non-CAOs and non-CAFOs near the threshold will be most affected. Additional time of two years (October 2019) should be given to implement the proposed new animal weights. This will give these operations time to budget for increased costs associated with additional permitting and nutrient management planning, or to reduce their herd size in a controlled, profitable manner below the new thresholds. (11)
Response: The SCC agrees and will provide a phase in period for these types of operations.

Comment 68: If somebody becomes a VAO (non-CAFO) after the new weights go into effect, they should have the option to withdraw from Act 38 immediately. They could choose to finish out their plan, but if their planner shows that they are not a CAO/CAFO anymore, they could withdraw right away. (14)
Response: Procedures are already in place for a CAO and/or CAFO to demonstrate that they are no longer a CAO and/or CAFO, become a VAO, and withdrawal from the program. This guidance will not change the existing procedures for CAOs and/or CAFOs to alter their classification.

Comment 69: Perhaps the more efficient and effective alternative would be to change Pennsylvania's CAFO regulations to align with the EPA's in which changing animal weights would not be a factor. As you are likely aware, other states and the EPA define CAFOs based on animal numbers (*and also whether manure or wastewater enters surface water*). This seems to be more streamlined than the way Pennsylvania bases CAFO permitting on animal weights, animal numbers, and density of animal weight per acre of farm ground. Aligning Pennsylvania's methodology with the EPA's might also make data collection and reporting to the agency a more cohesive process. (15)
Response: The SCC acknowledges this comment, but the comment is outside the scope of this specific guidance.

Comment 70: We encourage you to set a date, perhaps a year from now for the proposed changes to take effect, but allow up to five (5) years for farm operations to comply. (15)
Response: The SCC appreciates the comment and a phase in period will be instituted.

Comment 71: We propose that a "grace period" of 2-5 years from the effective date be given to existing non-CAOs and non-CAFOs to use these proposed new animal weights. These livestock operations will be the most impacted by this change. (15)
Response: The SCC is proposing a phase in period for the new standard animal weights.

Comment 72: The newly proposed animal weights will change the dynamics of existing CAO/CAFO calculations that show a producer is currently not a CAO/CAFO but could

reclassify these livestock operations as new Concentrated Animal Operations and Concentrated Animal Feeding Operations. Both state and federal regulations may have a significant impact on these operations by requiring inspections and incurring thousands of dollars of additional expense for nutrient management plans and related livestock permitting costs. This may cause some producers to exit the livestock business. Producers will need to be advised that using the new animal weights in CAO/CAFO calculations will not necessarily place a livestock operation into regulated status if there is adequate acreage that is available for manure application. (20)
Response: The SCC appreciates the comment. The existing public outreach materials will be revised and do have discussion on the AEU/Acre calculation.

Comment 73: Once the new weights become effective, the Districts will need to revisit the farms that are close to CAO status and recalculate the AEU/acre to determine their status. Newly identified CAOs would then have time to start the plan development process for the 2019 crop year. (21)
Response: The SCC appreciates the comment. A delegated conservation district, as part of their Required Output Measures (ROMs), must identify CAOs. It must also be noted that commercial Nutrient Management Specialist (NMS) should be performing official CAO calculations that the delegated conservation district will review.

Comment 74: The SCC would take the lead in carrying-out and providing information on this update; the Conservation Districts would only have to support. (22)
Response: Delegated Conservation Districts will need to follow the ROMs that are contained in their delegation agreements.

Comment 75: As CAFO permits come up renewal – at that time, the new numbers would be used unless the farm can supply animal weights/ages/etc. based on that farms operation. (25)
Response: The SCC acknowledges the comment. The SCC is proposing a phase in period for the new standard animal weights.

Agronomy Facts 54 Roll Out Comments:

Comment 76: Publicity. Just as with MMP and Ag E&S plans, Lancaster farming, spots at every County ag meeting, pesticide credit meetings. As always, education and compliance are two different animals. Again, the dairy and beef enterprises seem to be the most affected and the hardest to actually monitor in existing operations. If they haven't needed a plan for the 20 years, the program has existed it will be slow changing that mindset. (4)
Response: The SCC appreciates the comment.

Comment 77: Regional meetings are always a good place for new information, explanation and training. (9)
Response: The SCC agrees with this comment.

Comment 78: For those operations that were not CAO's/CAFO's, but who will be based on new animal weights, they should be effective immediately, but perhaps some concession/time given for them to figure out how this will affect their operation and get a plan writer if need be. A date

of October 1, 2017 would be great, in order to keep crop year and the standards that we are working towards; but I'm not sure that allows enough time (if new weights are rolled out on January 1, 2017) for unassuming operators to determine the effects to their operation, to find a plan writer, and have a plan developed (and paid for). October 1, 2018 might be a bit too far out, I'm not sure. Maybe give a deadline of December 31, 2017, with the knowledge that the real crop year will be on October 1 of each year following. This also gives us as a district the time to contact farmers who we have done CAO calculations for in the past that will become CAO's with these numbers, and let them know of their responsibilities. (10)
Response: The SCC acknowledges the comment. The SCC is proposing a phase in period for the new standard animal weights.

Comment 79: We recommend that the SCC estimate how many farms may be affected by the proposed changes. These farms should be contacted directly by the SCC through a mailing. Disseminate the proposed changes through professionals, press releases, Pennsylvania Farm Bureau, mailings and conservation districts. (11)
Response: There is no mechanism in place for the SCC to make direct contact to farms that may be affected by the changes. The SCC will likely look to NM professionals, Pennsylvania Farm Bureau, conservation districts, and others to assist with mailings, press releases, etc.

Comment 80: Publish new weights in NM Newsletter, make all plan writers and conservation districts aware of it, and have the new weights listed in the newest Tech Manual. (14)
Response: Please see the SCC's response to Comment 79.

Comment 81: Consider providing state funds towards NMPs for those non-CAOs and non-CAFOs that will now become CAOs and CAFOs due to the proposed new animal weights. Spread the word through private consultants, press releases, mailings, conservation districts and collaborative dairy education and support organizations like the Professional Dairy Managers of PA, Extension and the Center for Dairy Excellence. (15)
Response: The SCC acknowledges the comment. Please see the SCC's response to Comment 79.

Comment 82: Any roll-out of the new animal livestock weights that may reclassify a livestock operation as a CAO or CAFO that requires a nutrient management plan and/or a livestock permit will need to include an effective outreach plan by the State Conservation Commission through publications, electronic media and farm meetings that provide advanced information to agricultural producers and assistance to help determine if their livestock operations will be reclassified as CAOs or CAFOs. Penn State Extension could participate in disseminating new animal weight criteria by utilizing agricultural mailing lists, electronic and print media and making presentations at the winter farm meetings which would include the well-attended pesticide certification meetings. (20)
Response: The SCC acknowledges the comment. Please see the SCC's response to Comment 79.

Comment 83: I'm not sure what roll out options there are besides what was already discussed in #3. When new weights are adopted then I assume they will be incorporated into an updated

spreadsheet version and an announcement made in the newsletter like all prior changes. You may need to establish a deadline for Districts to perform the recalculations of borderline CAO farms. (21)
Response: The SCC acknowledges the comment. Please see the SCC's response to Comment 79.

Comment 84: It is our recommendation that the SCC staff work with the appropriate staff at PSU to update the Agronomy Fact Sheet 54 to reflect the changes made in July 2017. This will then be used in all trainings of Nutrient Management Planners/Conservation Staff and so forth. (25)
Response: The SCC acknowledges the comment.