Standard Animal Weights

Agricultural Advisory Board
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Frank X. Schneider
State Conservation Commission
Director, Nutrient and Odor Management Programs

Background

- SCC Staff would like to update the AAB on possible changes to the Standard Animal Weights that are utilized in the Act 38 Nutrient Management Program

- The current animal weights that are used in the Act 38 Nutrient Management Plan (NMP) program were developed in 2010.

- The original animal weights were published in 1997 for Act 6.
  - In 2007, a revision was made for Act 38.
  - In 2010, the weights were again revised to better reflect current Pennsylvania agriculture.

Reason / Request

- Staff has received many requests from certified NMP writers indicating that the average weights and grouping of different production cycles is not current with the current trend in Pennsylvania Agriculture.

- Specifically, Penn State swine experts inquired about updating the swine numbers and NMP specialists that work in the duck industry indicated that the duck numbers and groupings were not reflective of the industry.

- Based of those requests, staff and Penn State Cooperative Extension felt it was best to review and update all animal species and groupings to the current trends and to be representative of what currently exists in Pennsylvania.

Regulations

- 83.262 (a) (1) (i) of the Act 38 regulations state:

  Compute the animal weight for the agricultural operation by multiplying the average number of animals on the agricultural operation by the *standard animal weight used by the livestock industry in this Commonwealth*. The standard weights contained in guidance published by the Commission may be used to meet this requirement. Other animal weights may be used in place of those in the Commission guidance, if there is sufficient documentation to support their use. For those animal types not included in the Commission guidance, the average animal weight for the operation shall be used for this calculation, taking into account, if applicable, the range of animal weights throughout the time the animals are on the operation.

Effects

- Please note that any changes made to the standard animal weights, which are needed to be more reflective of Pennsylvania Agriculture, could have ripple effects that include:
  - Addition of new Concentrated Animal Operations (CAOs)
  - Addition of new Concentrated Animal Feeding Operations (CAFOs)
  - Deletion of some existing Concentrated Animal Operations (CAOs)
  - Deletion of some existing Concentrated Animal Feeding Operations (CAFOs)

Questions

- Additionally, staff will need to contemplate and make recommendations to the SCC on the following:
  - When will the changes become effective?
  - How will the new animal weights be brought into existing NMPs ?
  - How will the new animal weights be brought into existing CAO / CAFO calculations that show someone is not a CAO / CAFO?
  - How will these new weights and agronomy facts 54 be “rolled out”?

Proposed Dairy

- ***Significant*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Dairy	
Holstein	
Cow	~~1,300~~1500
Heifer: 1–2 yr.	~~900~~ 1050 (~~650–1,150~~800-1300)
Calf: 0–1 yr.	~~375~~ 445 (~~100–650~~90-800)
Bull	~~1,500~~2000
Brown Swiss	
Cow	~~1,300~~1450
Heifer: 1–2 yr.	~~900~~ 1000 (~~650–1,150~~750-1250)
Calf: 0–1 yr.	~~375~~ 420 (~~100–650~~90-750)
Bull	~~1,500~~2000
Ayrshire	
Cow	~~1,100~~1250
Heifer: 1–2 yr.	~~800~~ 888 (~~575–1,025~~650-1125)
Calf: 0–1 yr.	~~338~~ 365 (~~100–575~~80-650)
Bull	~~1,250~~1800
Guernsey	
Cow	~~1,100~~1200
Heifer: 1–2 yr.	~~800~~ 863 (~~575–1,025~~625-1100)
Calf: 0–1 yr.	~~338~~ 348 (~~100–575~~70-625)
Bull	~~1,250~~1800
Jersey	
Cow	~~900~~1000
Heifer: 1–2 yr.	~~600~~ 675 (~~400–800~~500-850)
Calf: 0–1 yr.	225 (50–~~400~~500)
Bull	~~1,000~~1400

Proposed Swine

- ***Slight*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Swine	
Nursery pig	~~30~~ **33** (15–~~45~~**50**)
Wean to finish	~~140~~ **153** (15–~~265~~**290**)
Grow finish	~~155~~ **170** (~~45~~**50**–~~265~~**290**)
Gestating sow	400
Sow and litter	470
Boar	450

Poultry

- ***Significant*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Poultry	
Layer: 18–~~65~~ **75** wk.	~~3.10~~**3.13** (~~2.75~~**2.82**–~~3.45~~**3.44**)
Layer: 18–~~105~~ **90** wk.	~~3.15~~**3.14 (2.82–3.46)**~~weighted avg.~~
Layer, brown egg: ~~20–65~~**18-75** wk.	~~3.8~~**3.85** (~~3.3-4.3~~**3.35-4.34**)
Layer, brown egg: ~~20–105~~**18-90** wk.	~~4.00~~**3.85** (~~3.3-4.7~~**3.35-4.34**)
Pullet: 0–~~18~~ **16** wk.	~~1.42~~**1.38** (0.08–~~2.75~~**2.67**)
Pullet, brown egg: 0–16 wk.	**1.55 (0.08–3.0)**
Broiler, large: 0–53 days	~~3.0~~**4.0** (0.09–~~6.0~~**8.0**)
Broiler, medium: 0–35 days	~~2.3~~**2.5** (0.090–~~4.5~~**5.0**)
Roaster	~~3.54 (0.09–7)~~
Male: 0–7 wk.	**4.3 (0.09 – 8.6)**
Female: 0–9 wk.	**4.9 (0.09 – 9.8)**
Turkey, tom brooder: 0-6 wk.	**3.31 (.12-6.5)**
Turkey, hen brooder: 0-6 wk.	**2.69 (.12-5.25)**
Turkey, tom: **6**~~0~~–18 wk.	~~20.0~~**25.25 (6.5**~~0.12–40~~**44**)
Turkey, hen **regular**: **6**~~0~~–12 wk.	~~7.1~~**11.13 (5.25**~~0.12–14~~**17**)
Turkey, hen heavy: 6-16 wk.	**14.13 (5.25-23)**
Duck, **grower**: 0–40~~3~~ days	3.75**6** (0.22~~11~~–7.**3**)
Duck, developer: 0-196 days	**3.21 (.22-6.2)**
Duck, laying	**6.85 (6.2-7.5)**
Guinea, **growing**: 0–14 ~~to 24~~ wk.	1.9 (0.06–3.75)
Guinea, mature	**3.75**
Pheasant, **growing**: 0–13 ~~to 43~~ wk.	1.53 (0.05–3.**0**)
Pheasant, mature	**3.0**
Chukar, growing: 0–13 ~~to 43~~ wk.	0.52 (0.04–1.**0**)
Chukar, mature	**1.0**
Quail, **growing**: 0–13 ~~to 43~~ wk.	0.26 (0.02–0.5)
Quail, mature	**0.5**

Beef

- ***Slight*** change

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**

Veal

- ***Slight*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Veal	
Calf: 0–20 wk.	~~270~~ **280** (95–~~445~~**465**)

Sheep and Goats

- ***Significant*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Larger Breed Sheep	
Lamb: 0–1 yr.	~~80~~ **85** (10–~~150~~**180**)
Ewe	~~175~~**225**
Ram	~~225~~**300**
Smaller Breed Sheep	
Lamb: 0–1 yr.	~~50~~ **80** (10–~~90~~**150**)
Ewe	~~150~~**175**
Ram	~~185~~**225**
Meat Goats	
Kid: 0–1 yr.	65 (5–125)
Doe	150
Buck	200
Dairy Goats	
Kid: 0–1 yr.	45 (5–85)
Doe	125
Buck	170

Equine

- no change

Type of Animal	Standard Weight (lbs) during Production (range)
Miniature Horses & Miniature Donkeys	
Foal: 0–6 mo.	35 (25-45)
Weanling: 6-12 mo.	60 (45-75)
Yearling: 12-24 mo.	100 (75-125)
Two Year Old: 24-36 mo.	150 (125-175)
Mature	200
Ponies & Donkeys	
Foal: 0–6 mo.	65 (30-100)
Weanling: 6-12 mo.	150 (100-200)
Yearling: 12-24 mo.	300 (200-400)
Two Year Old: 24-36 mo.	400 (300-500)
Mature	600
Light Horses & Mules	
Foal: 0–6 mo.	190 (80-300)
Weanling: 6-12 mo.	450 (300-600)
Yearling: 12-24 mo.	700 (600-800)
Two Year Old: 24-36 mo.	900 (800-1000)
Mature	1100
Draft Horses	
Foal: 0–6 mo.	360 (120-600)
Weanling: 6-12 mo.	800 (600-1000)
Yearling: 12-24 mo.	1150 (1000-1300)
Two Year Old: 24-36 mo.	1450 (1300-1600)
Mature	1800

Bison

- ***Significant*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Bison	
Calf: 0–1 yr.	~~525~~ **275** (50-**500**~~1000~~)
Yearling 1-2 yr.	**650 (500-800)**
Cow	~~1200~~**1000**
Bull	~~2000~~**1600**

Deer

- ***No*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Deer	
Fawn: 0-6 mo.	36 (7-65)
Yearling Doe: 6-18 mo.	95 (65-125)
Yearling Buck: 6-18 mo.	110 (65-155)
Mature Doe	145
Mature Buck	200

Alpaca and Llama

- ***Slight*** change

Type of Animal	Standard Weight (lbs) during Production (range)
Alpaca	
Young	80 (15-145)
Mature Female	145
Mature Male	170
Llama	
Cria: 0-1 yr.	~~85~~ **75** (~~20-150~~**25-125**)
Yearling: 1-**2**~~3~~ yr.	~~225~~ **213** (~~150-300~~**125-300**)
Mature	~~325~~**350**

Review

- Staff and Penn State Cooperative Extension have started a review of the standard animal weights.
  - Significant changes are anticipated.

- It is staff's intention to make the draft updated standard animal weighs available for a 60 day public comment period.

- After thorough review of the comments received by Penn State species experts and SCC staff, an updated weight table and Agronomy Fact 54 will be presented to the SCC for action

Timeline

- It is anticipated that staff will ask for an action from the SCC on the new Standard Animal Weights sometime in 2017, after public comments and a more thorough review by Penn State species experts and SCC staff.