United States Department of Agriculture

Animal and Plant Health Inspection Service

Veterinary Services

and

Farm Service Agency

and

Farm Production and Conservation Business Center

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USDA Indemnity Values for 2022: Commercial Table



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Acronyms

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AMS	Agricultural Marketing Service
APHIS	Animal and Plant Health Inspection Service
FAO	Food and Agriculture Organization
FPAC-BC	Farm Production and Conservation Business Center
FSA	Farm Service Agency
FMV	Fair Market Value
LIP	Livestock Indemnity Program
LMIC	Livestock Marketing Information Center
NASS	National Agricultural Statistics Service
USDA	United States Department of Agriculture
VS	Veterinary Services

Definitions

Indemnity	Monetary payment(s) made to a livestock owner for livestock deaths in excess of normal mortality caused by adverse weather or by attacks by animals reintroduced into the wild by the Federal Government; and animals and animal products taken/destroyed to control/eradicate a disease.
Valuation Method	The method used to estimate the monetary value of an asset. Methods include establishment of indemnity tables, appraisal evaluation, and Farm Service Agency (FSA) historical evaluation.

Executive Summary

This document contains indemnity values for commercial animal agricultural commodities intended for use across U.S. Department of Agriculture (USDA) agencies or business units that deal with indemnity programs. These entities include the USDA Animal and Plant Health Inspection Service (APHIS) Veterinary Services (VS), USDA Farm Service Agency (FSA), and the USDA Farm Production and Conservation Business Center (FPAC-BC).

The commercial indemnity values presented here represent harmonized methods and data sources at the USDA level. Use of these values by APHIS-VS, FSA, and FPAC-BC will vary according to program differences across these agencies and business units.

These commercial indemnity values are estimated based on observable market transactions available from nationally recognized data sources including the USDA Agricultural Marketing Service (AMS), the USDA National Agricultural Statistics Service (NASS), and the Livestock Marketing Information Center (LMIC). These data provide observations of market transactions occurring at fair market value (FMV), which provide the basis for the estimates.

Introduction

1. Background and Objectives

In 2019, USDA APHIS VS began work on a new approach to indemnity value determination for animals the APHIS classifies as affected, suspect, or exposed to diseases of concern, to eradicate and control foreign animal diseases, emerging diseases, and program diseases as authorized by title 9, Code of Federal Regulations (9 CFR).

This effort was initiated to meet the following goals:

- To harmonize valuation approaches across USDA agencies;
- Address stakeholder requests for a more simplified and unified approach;
- To develop an approach that uses currently available vetted data sources and replace calculators reliant on outdated data that cannot be updated due to issues related to data availability; and
- To simplify and document the methods used to calculate values.

To achieve these goals, USDA economists developed a set of harmonized indemnity values and methods to determine values for animal indemnity. The result of this effort was a 2020 table of indemnity values for commercial animal agricultural commodities intended for use across USDA agencies or business units that deal with indemnity programs, including APHIS VS, FSA, and the FPAC-BC. An updated version of this table was produced for use in 2021.

The commercial indemnity values presented here represent updated values for use in 2022. The values again reflect the use of harmonized methods and data sources at the USDA level. However, use of these values by APHIS VS, FSA, and FPAC-BC will vary according to program differences across these agencies and business units.

As in 2020 and 2021, the commercial indemnity values for 2022 are estimated based on observable market transactions available from nationally recognized data sources including the USDA AMS, the NASS, and the LMIC. These data provide observations of market transactions occurring at FMV, which provide the basis for the estimates.

Table 1 is intended to replace APHIS VS indemnity calculators previously used for commercial cattle, swine, poultry, and sheep and goats. It is also intended to provide values for commercial livestock and poultry categories for which VS has not recently had indemnity calculators in use.

The objectives of the changes to indemnity valuations are to:

- (1) Develop a transparent and data-driven indemnity value matrix to set indemnity values for all regulated species (USDA APHIS 9 CFR, Parts 50-56) and other relevant species.
- (2) Harmonize methods and data sources between the USDA APHIS VS, FSA, and the FPAC-BC.

2. Overview of Updates

Differences in the values presented here and in the 2021 document largely reflect the expected market-based changes in values. Other changes are highlighted below:

- The adult open heifer (or cow) value was calculated using the average annual cwt value obtained from the Oklahoma National Stockyards Feeder Cattle sales report rather than the previously used AMS data which had become unavailable. Similarly, the bred heifer value was calculated using the NASS cattle, cows price received per cwt rather than the previously used AMS data for the same reason.
- 2. The formula for calculating the Layer 1st lay (18-45 weeks) was changed. Last year's 2021 value was calculated using the layer value from the Chicken and Eggs Report published late February 2020 then indexed using the relative price of table eggs. This year's value was calculated using last years indexed value indexed again using the relative price of table eggs. This method was selected because the publication date of the Chicken and Eggs Report is late February in the previous year and the previous method resulted in a 2 year lag between the data and the date of use.
- 3. The data source for calculating the values for bucks and nannies was changed from using Eastanollee market values, now including all the following market report auction prices obtained from USDA AMS.
 - Buffalo Livestock Market
 - Calhoun
 - Cullman Stockyards
 - Darlington Livestock Auction
 - Eastanollee
 - Humeston Livestock Auction
 - Kalona Livestock Auction
 - Montgomery County Livestock Auction
 - Orangeburg Livestock Auction
 - Producers Auction Yards (Missouri)
 - Producers Livestock Auction Co San Angelo
 - Public Auction Yards
 - Russellville Stockyards
 - Saluda Livestock Auction
 - SEMO Livestock Sales
 - Sioux Falls Regional Livestock
 - St Joseph Stockyards Market
 - TS White Sheep and Goat Sale

4. Chicken broiler and turkey values are now categorized by age rather than by weight. Two additional turkey categories were added to create different values for older, heavier birds vs. younger, lighter birds.

3. Indemnity Values

Table 1. USDA Commercial Indemnity Table for 2022

Beef	\$ Value per head 2022 (100% market value)
Non-adult beef cattle, less than 12 months of age	
Non-adult (< 250 lbs.)	233.69
Non-adult (<400 lbs., changed to 250-399 lbs. for 2020)	632.50
Non-adult (400-799 lbs.) steers	1,042.41
Non-adult (400-799 lbs.) heifers	825.07
Non-age specific (intended for larger feeder animals rather than breeding animals)	
Feeder steers or heifers (800+ lbs.)	1,469.60
Adult beef cattle, 12 months of age and older	
Adult cull cow (non-bred)	841.60
Adult cow bred	1,315.98
Adult bull	1,710.77
Adult open heifer or cow (non-cull)	1,028.72
Adult bred heifer	1,105.58
Dairy	
Non-adult dairy cattle, less than 12 months of age	
Non-adult (< 250 lbs.)	60.42
Non-adult (<400 lbs., changed to 250-399 lbs. for 2020)	340.63
Non-adult (400-799 lbs.) steers	681.25
Non-adult (400-799 lbs.) heifers	681.25
Non-age specific (intended for larger feeder animals rather than breeding animals)	
Steers or heifers (800+ lbs.)	1,112,71
Adult dairy cattle, 12 months of age and older	
Adult heifer or cow	1,362.50
Adult bull	1,477.32
Buffalo/Bison	
Non-adult buffalo/bison, less than 12 months of age	
Non-adult (< 250 lbs.)	449.11
Non-adult (250-399 lbs.)	745.60
Non-adult (400-799 lbs.)	1,629.21
Non-age specific (intended for larger feeder animals rather than breeding animals)	
Steers or heifers (800+ lbs.)	2,187.14
Adult buffalo/bison, 12 months of age and older	
Adult heifer or cow	1,982.49
Adult bull	2,391.79

Beefalo	
Non-adult beefalo, less than 12 months of age	
Non-adult (< 250 lbs.)	313.98
Non-adult (250-399 lbs.)	673.55
Non-adult (400-799 lbs.)	1,162.05
Non-age specific (intended for larger feeder animals rather than breeding animals)	
Steers or heifers (800+ lbs.)	1,738.68
Adult beefalo, 12 months of age and older	
Adult heifer or cow	1,564.95
Adult bull	1,964.90
Swine	
Isoweans: up to 15 lbs.	49.02
Nursery: 15 to 50 lbs.	75.22
Swine, sows, boars, barrows, gilts (50-150 lbs.)	128.31
Swine, sows, boars, barrows, gilts (150-300 lbs.)	178.27
Swine, sows, boars, barrows, gilts (300-450 lbs.)	270.83
Swine, sows/boars (>450 lbs.)	352.10
Sheep	
Baby lambs (< 50 lbs.)	131.03
Lambs (51-99 lbs.), includes replacement ewe lambs retained for breeding	284.38
Slaughter lambs (100+ lbs.)	303.69
Yearling ewes maintained for breeding (12-24 months) (not late gestation)	287.34
Yearling ewes (12-24 months) late gestation (last 4 weeks)	385.62
Young ewes maintained for breeding (25-48 months) (not late gestation)	257.23
Young ewes (25-48 months) late gestation (last 4 weeks)	355.50
Middle-aged ewes maintained for breeding (49-72 months) (not late gestation)	212.22
Middle-aged ewes (49-72 months) late gestation (last 4 weeks)	310.49
Aged ewes (73+ months) (not late gestation), includes mature sheep in slaughter channels and	
wethers too old to slaughter as lambs (12+ months based on eruption of first incisors)	192.77
Aged ewes (6+ years) late gestation (last 4 weeks)	291.04
Sire rams of reproductive age	732.18
Goats	
Bucks maintained for breeding (12+ months)	285.74
Seedstock nannies/does maintained for breeding (12+ months) (not late gestation)	264.44
Seedstock nannies/does maintained for breeding (12+ months), late gestation (last 4 weeks)	359.47
Other adult goats (nannies/does/bucks) not maintained for breeding (12+ month)	232.75
Other adult nannies/does (12+ month), late gestation (last 4 weeks)	327.78

Kids (< 40 lbs.)	126.71
Kids (40-60 lbs.)	175.84
Kids (60-80 lbs.)	233.89
Kids (81+ lbs.)	280.37
Chickens, Layers	
Table eggs (\$/dozen)	0.73
Chick (0-1 week)	0.28
Pullet (2-17 weeks)	3.11
Layer 1st lay (18-45 weeks)	5.74
Layer 2nd lay (46-65 weeks)	2.87
Pre-spent hen (66-85 weeks)	1.44
Spent hen (86 weeks or more)	0.01
Chickens, Broilers	
Chickens, deboning/roasters (super roasters/parts, 49+ days of age)	5.21
Chickens, (roasters, 42-48 days of age)	3.96
Chickens, (broilers, 32-41 days of age, and pullets regular size)	3.11
Chickens, (broilers, <32 days of age, and small Cornish hens)	2.09
Chickens, chicks	0.28
Turkeys	
Turkeys, toms, 84+ days of age	30.10
Turkeys, toms, 49-83 days of age	24.62
Turkeys, hens, 77+ days of age	18.67
Turkeys, hens, 49-77 days of age	13.33
Turkeys, fryers and roasters, (8-49 days of age)	9.45
Turkeys, poults (0-7 days of age)	3.80
Other	
Ducks (12 weeks of age and older)	5.60
Ducklings (less than 12 weeks of age)	0.90
Goose (12 weeks of age and older)	42.23
Gosling (less than 12 weeks of age)	8.87
Deer, caribou, & reindeer ¹	547.33
Elk ²	759.75
Equine	927.88

¹ VS uses this value for adult animals produced for meat. It does not include non-adult animals.

² VS uses this value for adult animals produced for meat. It does not include non-adult animals.

Alpaca	405.32
Llama	327.63
Emu	218.33

Appendix. Calculation Methods and Data Sources for Commercial Indemnity Valuations

(Note: All values are estimated at 100 percent of market value.)

Methods

1. Beef Section

Non-adult beef cattle, less than 12 months of age

Beef Non-adult (<250 lbs.)

This estimated value retains the proportional difference between beef non-adult (<250 lbs.) and beef non-adult (250-399 lbs.) estimated by FSA in 2020.

Beef Non-adult (250-399 lbs.)

Estimated value is 375 lbs. worth of the NASS cattle, calves price received, measured in \$ / cwt obtained through NASS Ag Prices --or-- through QuickStats: Survey > Animals & Products > Livestock > Cattle > Price Received > Cattle, Calves - Price Received, Measured in \$ / cwt.

Beef Non-adult (400-799 lbs.) Steers

Estimated value is 625 lbs. worth of the average annual cwt value obtained from the Oklahoma National Stockyards Feeder Cattle sales report: <u>https://www.ams.usda.gov/mnreports/ams_1280.pdf</u>

Beef Non-adult (400-799 lbs.) Heifers

Estimated value is 550 lbs. worth of the average annual cwt value obtained from the Oklahoma National Stockyards Feeder Cattle sales report: <u>https://www.ams.usda.gov/mnreports/ams_1280.pdf</u>.

Non-age specific (intended for larger feeder animals rather than breeding animals)

Beef Feeder Steers or Heifers (800 lbs.+)

Estimated value is 1,000 lbs. worth of the average annual cwt value obtained from the Oklahoma National Stockyards Feeder Cattle sales report: <u>https://www.ams.usda.gov/mnreports/ams_1280.pdf</u>.

Adult beef cattle, 12 months of age and older

Adult Cull Cow (non-bred)

Estimated value is 1,200 lbs. worth of the NASS cattle, cows price received per cwt from NASS Ag Prices -ORthrough QuickStats: Survey > Animals & Products > Livestock > Cattle > Price Received > Cattle, Cows - Price Received, Measured in \$ / cwt.

Adult Cow Bred

Estimated value is based on the adult cull cow value plus 75 percent of the beef non-adult (250-400 lbs.) value.

Adult Bull

Estimated value is based on the adult cow bred value plus 30 percent.

Adult Open Heifers (or Cows)

Estimated value is 700 lbs. worth of the average annual cwt value obtained from the Oklahoma National Stockyards Feeder Cattle sales report: <u>https://www.ams.usda.gov/mnreports/ams_1280.pdf</u>.

Bred Heifers

Estimated value is 900 lbs. worth of the NASS cattle, cows price received per cwt from NASS Ag Prices -ORthrough QuickStats: Survey > Animals & Products > Livestock > Cattle > Price Received > Cattle, Cows - Price Received, Measured in \$ / cwt plus 75 percent of the beef non-adult (250-400 lbs.) value.

2. Dairy Section

Non-adult dairy cattle, less than 12 months of age

Dairy Non-adult (<250 lbs.)

This estimated value retains the proportional difference between Dairy Non-adult (<250 lbs.) and Dairy Non-adult (250-399 lbs.) estimated by FSA in 2020.

Dairy Non-adult (250-400 lbs.) Value is based on 25 percent of the Adult Cow value.

Dairy Non-adult (400-799 lbs.) Steers and Heifers Value is based on 50 percent of the Adult Cow value.

Non-age specific (intended for larger feeder animals rather than breeding animals)

Dairy Steers or Heifers (>800 lbs.)

Assumes 1,000 lbs. of representative weight. Uses the average of per pound price of Adult Dairy Cows and Non-adult dairy cows (400-799 lbs.) as the price. The 2020 formula is 1,000*(Average (Adult Dairy Cow value per head/ Representative weight, Non-adult (400-799 lbs.)/Representative weight).

Adult dairy cattle, 12 months of age and older

Dairy Adult Cow (or Heifer)

Based on an average of quarterly prices from NASS Quickstats, Cattle, Cows, Milk - Price Received, Measured in \$/hd.

Dairy Adult Bull

The data source for bulls is the AMS report (LM_CT168) National Weekly Direct Cow and Bull Report - Negotiated Price, available at https://mpr.datamart.ams.usda.gov/menu.do?path=Products\Cattle\Weekly Cattle\(LM_CT168)">https://mpr.datamart.ams.usda.gov/menu.do?path=Products\Cattle\Weekly Cattle\(LM_CT168)">https://mpr.datamart.ams.usda.gov/menu.do?path=Products\Cattle\Weekly Cattle\(LM_CT168)">https://mpr.datamart.ams.usda.gov/menu.do?path=Products\Cattle\Weekly Cattle\(LM_CT168)">https://mpr.datamart.ams.usda.gov/menu.do?path=Products\Cattle\Weekly Cattle\(LM_CT168)")

Select "Detail" for "Sub Reports Type" and select dates for the report (in "Report Dates" field on the webpage). Take rest of defaults and press "Continue." Take defaults, select "CSV" file format and press "Generate Report". Select "Download Detail File." Convert the .csv file to an .xlsx file. In the converted file, create a pivot table as follows. "Selling Basis" goes in the "Filters" area. Select the options of DRESSED and DRESSED – DOMESTIC for Selling Basis. "Classification," "Weight Range," and "Sum Values" go into the "Columns" area ("Sum Values" shows up automatically). "Region Name" goes in the "Rows" area. "Head Count," "Average Weight," and "Weighted Avg Price," go into the "Sum Values" area. In the "Sum Values" area, click on each of the fields there to bring up a pull-down menu. Pick "Value Field Settings" from the pull-down menu. This brings up options for summarizing each of the fields in the area. For "Head Count," select "Sum." For the other two fields, select "Average."

This pivot table includes carcass prices in \$/cwt for bulls 600+ lbs. along with average carcass weights. The assumed dressing percentage is 60 percent based on an analysis of USDA NASS data (USDA NASS, February 2020). These data were downloaded from https://quickstats.nass.usda.gov

The parameters for downloading the necessary report are:

Program: SurveySector: Animals & ProductsGroup: LivestockCommodity: CattleCategory: SlaughteredData Item(s): "CATTLE, GE 500 LBS, SLAUGHTER, COMMERCIAL, FI - SLAUGHTERED, MEASURED IN LB / HEAD,DRESSED BASIS" and "CATTLE, GE 500 LBS, SLAUGHTER, COMMERCIAL - SLAUGHTERED, MEASURED IN LB / HEAD,LIVE BASIS"Domain: TotalGeographic Level: NationalState: US TotalYear: [enter year as needed]Period Type: MonthlyPeriod: January through December

Multiply the carcass prices by the dressing percentage to get the price of a 1,000+ lbs. live weight bull in \$/cwt.

Divide the average carcass weights of bulls in the 600+ lbs. category by the dressing percentage to get the average live weight of bulls in the 1,000+ lbs. category.

Multiple the live weight price in \$/cwt by the average live weight and divide the result by 100 to get \$/head for bulls in the 1,000+ lbs. category.

3. Buffalo/Bison and Beefalo Section

Buffalo/Bison

Estimated values for all buffalo/bison categories are indexed forward from the previous year's values using weighted annual average bison carcass values (weighted by type and number of head). Bison carcass values are obtained from the AMS NW_LS_526 reports.

Beefalo

Values for all beefalo categories are assumed to be a weighted average of 3/8 of the value of bison and 5/8 of the value of beef cattle for the equivalent cohort category. For the beef 400 to 799 lbs. category, an average of the steer and heifer value is used.

4. Swine Section

Unless otherwise noted, all values for the swine section are calculated using information from the LMIC website (LMIC, January 2021). The specific information is found in the following spreadsheets posted on the LMIC site:

- Weekly National Feeder Pig Prices (FeederPigsNational.xls)
- Daily National Sow Price (PriorDaySowPurchaseNational.xls)
- Weekly Prices & Volumes for Barrows & Gilts and Sows (WeeklyDirectSwine.xls)

To download these spreadsheets, go to the LMIC website at http://www.lmic.info/

Accessing the necessary information from LMIC requires member access (USDA is a member), including username and password. Once logged in, go to "Members Only" on the toolbar to get a drop-down menu and select "Spreadsheets," then "Hogs" and "Prices." The spreadsheets listed above can be found in this Prices section.

Isoweans: up to 15 lbs.

The data used for these calculations is found in the FeederPigsNational.xls spreadsheet in the "EW10-12" tab under the column headings of Total Composite (Price per Head) > Formula & Cash > Wtd Avg Price. The values in this column are reported weekly. The calculation is an annual average across the weekly prices. The assumed average weight for isoweans is 11 lbs. (The weight is not used in the calculations.)

Nursery Pigs: 15 lbs. to 50 lbs.

The data used for these calculations is found in the FeederPigsNational.xls spreadsheet in the "40" tab under the column headings of Total Composite (Price per Head) > Formula & Cash > Wtd Avg Price. The values in this column are reported weekly. The calculation is an annual average across the weekly prices. The assumed average weight for nursery pigs is 40 lbs. (The weight is not used in the calculations.)

Swine, Sows, Boars, Barrows, Gilts: 50 to 150 lbs.³

This value is calculated as an average of the nursery pigs value described above and the value for swine, sows, boars, barrows, gilts: 150 to 300 lbs. described below⁴.

Swine, Sows, Boars, Barrows, Gilts: 150 to 300 lbs. 1,5

The value for this category is based on the HOGS, BARROWS & GILTS - PRICE RECEIVED, MEASURED IN \$ / CWT from NASS Quickstats available at <u>https://quickstats.nass.usda.gov</u>

The parameters for downloading the necessary report are:

³ The breakpoint between the 50 to 150 lbs and the 150 lb. to 300 lb. groups is based on prior USDA Farm Service Agency swine categories. Weights of market hogs have been increasing rapidly in recent years and may be re-evaluated in the future.

⁴ This category differs from FSA because it is based on different datasets. FSA averages values for feeder pigs and swine 150-450 lbs.

⁵ Used NASS data for these categories rather than the LMIC data used for the previous year, due to COVID-19 market disruptions evident in the data source. Using the NASS data as described gave a slightly higher value for the 300 to 450 lb. category.

Program: Survey Sector: Animals & Products Group: Livestock Commodity: Hogs Category: Prices Received Data Item(s): "HOGS, BARROWS & GILTS - PRICE RECEIVED, MEASURED IN \$ / CWT" Domain: Total Geographic Level: National State: US Total Year: [enter year as needed] Period Type: Monthly Period: January through December

The calculation is an annual average across the monthly prices. The prices are presented in \$/cwt. To convert to \$/head, this price is multiplied by an assumed average weight (260 lbs.) and then divided by 100.

Swine, Sows, Boars, Barrows, Gilts: 300 to 450 lbs.⁵

The data used for these calculations are also based on the HOGS, BARROWS & GILTS - PRICE RECEIVED, MEASURED IN \$ / CWT from NASS Quickstats (same as above: Swine, sows, boars, barrows, gilts: 150 to 300 lbs.) The calculation is an annual average across monthly prices. To convert to \$/head, this price is multiplied by an assumed average weight (395 lbs.) and then divided by 100.

Swine, Sows, Boars, Barrows, Gilts: > 450 lbs.⁵

The data used for these calculations are NASS Quickstats values for HOGS, SOWS - PRICE RECEIVED, MEASURED IN \$ / CWT available at <u>https://quickstats.nass.usda.gov</u>

The parameters for downloading the necessary report are:

assumed average weight (525 lbs.) and then divided by 100.

Program: Survey
Sector: Animals & Products
Group: Livestock
Commodity: Hogs
Category: Prices Received
Data Item(s): "HOGS, SOWS - PRICE RECEIVED, MEASURED IN \$ / CWT"
Domain: Total
Geographic Level: National
State: US Total
Year: [enter year as needed]
Period Type: Monthly
Period: January through December
The calculation is an annual average across monthly prices. To convert to \$/head this price is multiplied by an

5. Sheep and Goat Section

Sheep

The values for the sheep section can be obtained from reports downloaded from the AMS website (USDA AMS, January 2021b) at https://www.ams.usda.gov/market-news/search-market-news

From this page search for the National Monthly Replacement Sheep Report GL_LS336. This report is released monthly. Values for the sheep categories shown in Table 1 can be found in these reports. An annual average is taken of the monthly prices shown in these reports.

The value from this report for ewe lambs under 12 months of age is used as representative of lambs from 51-99 lbs., including replacement ewe lambs retained for breeding.

For ewes in late gestation (last 4 weeks), 75 percent of the baby lamb value is added to the corresponding ewe category.

The ram value is calculated using the reported values for rams under 12 months (because that is all that was available) times 1.3 to account for cost of feeding older rams.

The slaughter lamb price is calculated using weekly values in cents per pound value from the AMS St. Joseph report (<u>https://www.ams.usda.gov/mnreports/lm_lm352.txt</u>) times the representative weight (140 lbs.) divided by 100 to get the dollar value.

Goats

Values for bucks and nannies are calculated from the following market report auction prices obtained from USDA AMS, available at https://mymarketnews.ams.usda.gov/viewReport/2110

- Buffalo Livestock Market
- Calhoun
- Cullman Stockyards
- Darlington Livestock Auction
- Eastanollee
- Humeston Livestock Auction
- Kalona Livestock Auction
- Montgomery County Livestock Auction
- Orangeburg Livestock Auction
- Producers Auction Yards (Missouri)
- Producers Livestock Auction Co San Angelo
- Public Auction Yards
- Russellville Stockyards
- Saluda Livestock Auction
- SEMO Livestock Sales
- Sioux Falls Regional Livestock
- St Joseph Stockyards Market
- TS White Sheep and Goat Sale

An annual average is calculated from the monthly reported values. The annual average buck value is multiplied by 1.3 to allow for the cost of feeding bucks to maturity since the bucks sold at market are young animals less than 12 months of age.

Remaining values for the goat section are calculated from San Angelo, TX, auction prices obtained from the LMIC. For the other adult goats category, an annual average is taken across meat goats for slaughter bucks and nannies (converted from \$/cwt to \$/head at a representative live weight of 100 lbs.). For each of the kid categories, an annual average is taken across all grades for the given weight categories of feeder and slaughter kids (converted from \$/cwt to \$/head at representative live weights of 35, 50, 70, and 90 lbs. for each of the four kid goat categories).

For nannies in late gestation (last 4 weeks), 75 percent of the kid goat (< 40 lbs.) value is added to the corresponding adult goat category.

6. Poultry Section

Chickens, Broilers

Based on (a) NASS Quickstats broiler value times (b) representative weight within weight range.

(a) NASS Quickstats Broiler Value: <u>https://quickstats.nass.usda.gov/</u> The parameters for downloading the necessary report are:

> Program: Survey Sector: Animals & Products Group: Poultry Commodity: Chickens Category: Prices Received Data Item(s): "CHICKENS. BROILERS-PRICES RECEIVED, MEASURED IN \$/LB" Domain: Total Geographic Level: National State: US Total Year: [enter year as needed] Period Type: Monthly Period: January through December

(b) Representative Weight within Weight Range

Category	Pounds
Chickens, deboning/roasters (>7.75 lbs.) [Super Roasters/Parts]	9.2
Chickens, (6.26-7.75 lbs.) [Roasters]	7
Chickens, (4.26-6.25 lbs.) [Broilers/Pullets]	5.5
Chickens, (<4.25 lbs.) [Broilers/Cornish hens small]	3.7
Chickens, chicks	0.5

Weights were converted to age ranges using the publicly available Aviagen Ross 308 and Ross 308 FF performance objectives for 2019 (Aviagen, 2019).

Chickens, Layers

Layer 1st lay (18-45 weeks)

NASS Chicken and Eggs Annual Summary (Page 63) reported in January 2021 at <u>https://usda.library.cornell.edu/concern/publications/1v53jw96n?locale=en</u>

Value per head; United States: December 1, 2018-2019 [Excludes commercial broilers]

2022 value = 2021 value per head times (table egg price 2022/table egg price 2021)

Layer 2nd lay (46-65 weeks): half layer 1st lay value

Pre-spent hen (66-85⁶ weeks): half layer 2nd lay value

Pullets and chicks are the same values as in the broiler section.

Spent hens are assigned a value of \$0.01.

Table Eggs (\$/dozen)

Access NASS Quick Stats at <u>https://quickstats.nass.usda.gov/</u> The parameter values for downloading the necessary report are as follows:

Program: Survey Sector: Animals and Products Group: Poultry Commodity: Eggs Category: Price Received Data Item: Eggs, Table – Price Received, Measured in \$/dozen Domain: Total Geographic Level: National State: US Total Year: [enter year as needed] Period Type: Monthly Period: [enter month as needed]

Turkeys

Hens and Toms

The AMS Weekly National Fresh and Frozen Whole Young Turkeys Report (USDA AMS, January 2021b) is the data source for the turkey commercial indemnity values. The report is available at: https://www.ams.usda.gov/market-news/turkey-market-news-reports

⁶ Spent hen at 86 weeks reference: Karcher, Darrin and Joy Mench, "Overview of commercial poultry production systems and their main welfare challenges" in Advances in Poultry Welfare, Woodhead Publishing Series in Food Science, Technology and Nutrition 2018, Pages 3-25.

The report provides weekly values for fresh hens (8-16 lbs.) and toms (16-24 lbs.) in cents per pound to be used when calculating the annual values for the previous calendar year. The estimated value for hens and toms is calculated by selecting the midpoint weight for each range (hens=12; toms=20) then multiplying by the average annual value for each classification. An additional category for roasters and fryers (5-9 lbs.) is calculated using the midpoint weight, 7 lbs., times the average price per pound for hens and toms combined.

Weights were converted to age ranges using the publicly available Aviagen performance objectives for Nicholas Select, B.U.T 6, and Premium turkeys (Aviagen, undated).

Poults

Annual average value based on weekly reports from Graystone Small Animal Auction Sale, available at <u>https://www.ams.usda.gov/market-news/livestock-poultry-and-grain-other-reports</u>

7. Other Commodity Categories

(Methods and data sources adopted from USDA FSA LIP Table for 2021 adjusted to 100 percent of market value (USDA FSA, January 2021).)

Ducks (12 weeks of age and older)

Initial data source: USDA AMS WEEKLY CENTRAL REGION DUCKLING (NW_PY046). (1) Assuming 4.5 lbs. per duck times the average annual mid-point price per lbs. (2). Take farm price of broilers Nass Quickstats; (3) AMS report 2758 monthly composite weighted average. (4) Obtain the ratio of (2)/(3) for the reporting year. (5) Take the 4-year rolling average of the ratio (4). (6) Multiply the price obtained in (1) by the ratio obtained in (5).

Ducklings (less than 12 weeks of age)

Assumes 16 percent of the value of mature duck.

Goose (12 weeks of age and older)

Initial data source: USDA AMS WHOLESALE NEW YORK CITY GOOSE PRICE (AJ_PY038). (1) Assuming 12lbs. per goose times the average annual mid-point price per lbs. (2). Take farm price of broilers NASS Quickstats; (3) AMS report 2758 monthly composite weighted average (4) Obtain the ratio of (2)/(3) for the reporting year. (5) Take the 4-year rolling average of the ratio (4). (6) Multiply the price obtained in (1) by the ratio obtained in (5).

Gosling (less than 12 weeks of age)

Assumes 21 percent value of mature goose.

Deer, Caribou & Reindeer

Initial public data source: None. Adjusts the FSA LIP payment rate of the previous year by the year-over-year value change in adult beef (cull) cow (see Beef Cattle section above).

Elk

Initial public data source: None. Adjusts the FSA LIP payment rate of the previous year by the year-over-year value change in adult beef (cull) cow (see Beef Cattle section above).

Equine, Alpaca, Llama, and Emu

Distinct values for each species. Initial public data source: None. Adjust the FSA LIP payment rate of the previous year by the year-over-year value change in adult beef (cull) cow (see Beef Cattle section above).

References and Data Sources

Aviagen, 2019. Ross 308 and Ross 308 FF performance objectives. <u>https://en.aviagen.com/assets/Tech_Center/Ross_Broiler/Ross308-308FF-BroilerPO2019-EN.pdf</u>

Aviagen, undated. Nicholas Select, B.U.T 6, and Premium turkey performance objectives. <u>https://www.aviagenturkeys.us/uploads/2021/01/14/Nicholas%20Comm%20Perf%20Obj%20Select.pdf</u> <u>https://www.aviagenturkeys.us/uploads/2018/06/27/BUT%206%20Comm%20Perf%20Obj.pdf</u> <u>https://www.aviagenturkeys.us/uploads/2021/08/11/Premium%20Commercial%20Performance%20Objectives.pdf</u>

FAO (Food and Agriculture Organization of the United Nations), 2010. Agribusiness Handbook for Poultry Meat & Eggs. <u>http://www.fao.org/3/al175e/al175e.pdf</u>

Livestock Marketing Information Center (LMIC) website accessed January 15, 2021. https://www.lmic.info/

Penn State (Pennsylvania State University) Extension, July 2017. Growth Charts for Dairy Heifers. <u>https://extension.psu.edu/growth-charts-for-dairy-heifers</u>

USDA AMS (United States Department of Agriculture, Agricultural Marketing Service), January 2021. Custom Reports. <u>https://www.ams.usda.gov/market-news/custom-reports</u>

USDA AMS (United States Department of Agriculture, Agricultural Marketing Service), January 2021a. Data Mart.<u>https://mpr.datamart.ams.usda.gov</u>

USDA AMS (United States Department of Agriculture, Agricultural Marketing Service), January 2021b. Market News. <u>https://www.ams.usda.gov/market-news/search-market-news</u>

USDA APHIS 9 CFR, Parts 50-56 (United States Department of Agriculture, Animal and Plant Health Inspection Service). U.S. Code of Federal Regulations.

USDA APHIS VS (United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services), July 2018. "Policy and Process Recommendations to Improve Indemnity for Species Regulated Under Title 9, Parts 50-56, in the Code of Federal Regulations."

USDA FPAC-BC (United States Department of Agriculture, Farm Production and Conservation Business Center), January 2020. Livestock Values 1_15_2021. xlsx, unpublished Excel Spreadsheet. Washington, DC.

USDA FSA (United States Department of Agriculture, Farm Service Agency), January 2021. Livestock Indemnity Program, Fact Sheet. Washington, DC. (draft). Most recent public version of this factsheet is available at https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/livestock_indemnity_program_lip-fact_sheet.pdf

USDA NASS (United States Department of Agriculture, National Agricultural Statistics Service), January 2021. https://quickstats.nass.usda.gov/

USDA NASS (United States Department of Agriculture, National Agricultural Statistics Service) Chickens and Eggs Annual Summary, January 2021. <u>https://usda.library.cornell.edu/concern/publications/1v53jw96n?locale=en</u>

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