

Cattle & Carcass TRAINING

CME Group Cattle Contracts



United States
Department of
Agriculture



Timeline

CME Group early history

- 1848** CBOT creates the world's first futures exchange, based in Chicago.
- 1851** CBOT offers earliest "forward" contract ever recorded; forward contracts begin to gain popularity among merchants and processors.
- 1865** CBOT formalizes grain trading with the development of standardized agreements called "futures" contracts, world's first such agreements CBOT creates world's first futures clearing operation when it begins requiring performance bonds, called "margin," to be posted by buyers and sellers in its grain markets.
- 1870** CBOT develops first octagonal futures trading pit.
- 1885** To accommodate rapid growth of futures trading, CBOT constructs a new building at LaSalle and Jackson, Chicago's tallest building and first commercial structure with electric lights.
- 1898** Chicago Butter and Egg Board opens in Chicago.
- 1919** Chicago Butter and Egg Board is reorganized as the Chicago Mercantile Exchange.

Timeline

History of Cattle futures

Cattle began trading on the Chicago Mercantile Exchange on November 30, 1964.

Original contract specs

25,000 pounds of Choice Steers (variance $\pm 5\%$)

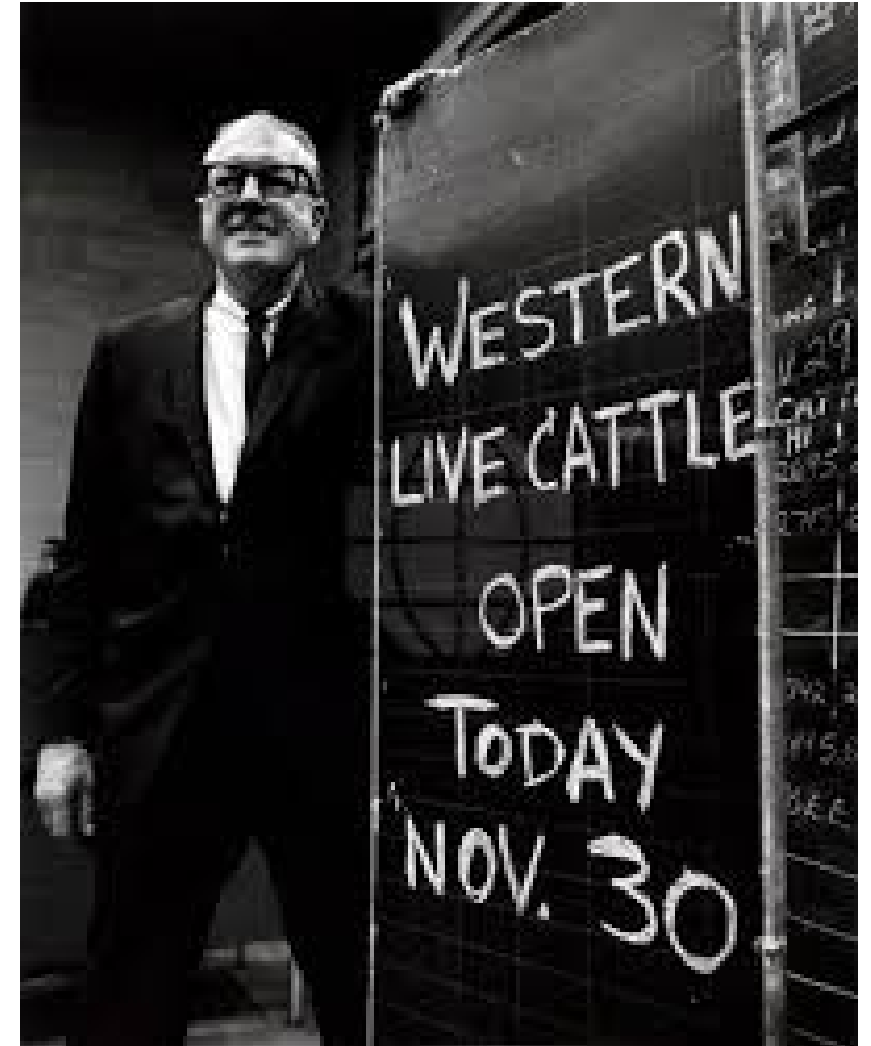
Par weights: 1,000 to 1,150 lbs with a 61% yield

 1,151 to 1,300 lbs with a 62% yield

Par delivery in Chicago, IL

Delivery in Omaha, NE at a \$0.75/cwt discount

Daily price limit of \$1.50 per cwt



Today

**CME Group's ADV
is roughly 15.4
million contracts**

**Agricultural Products
ADV is roughly 1.6
million contracts**

**Livestock ADV is
157,000 contracts**



Data as of November 3, 2020

Liquidation of futures

Settlement

At expiration

Cash-settlement to an index (**Feeder Cattle**)

Physical delivery (**Live Cattle**)

- *If LONG = accept delivery*
- *If SHORT = make delivery*

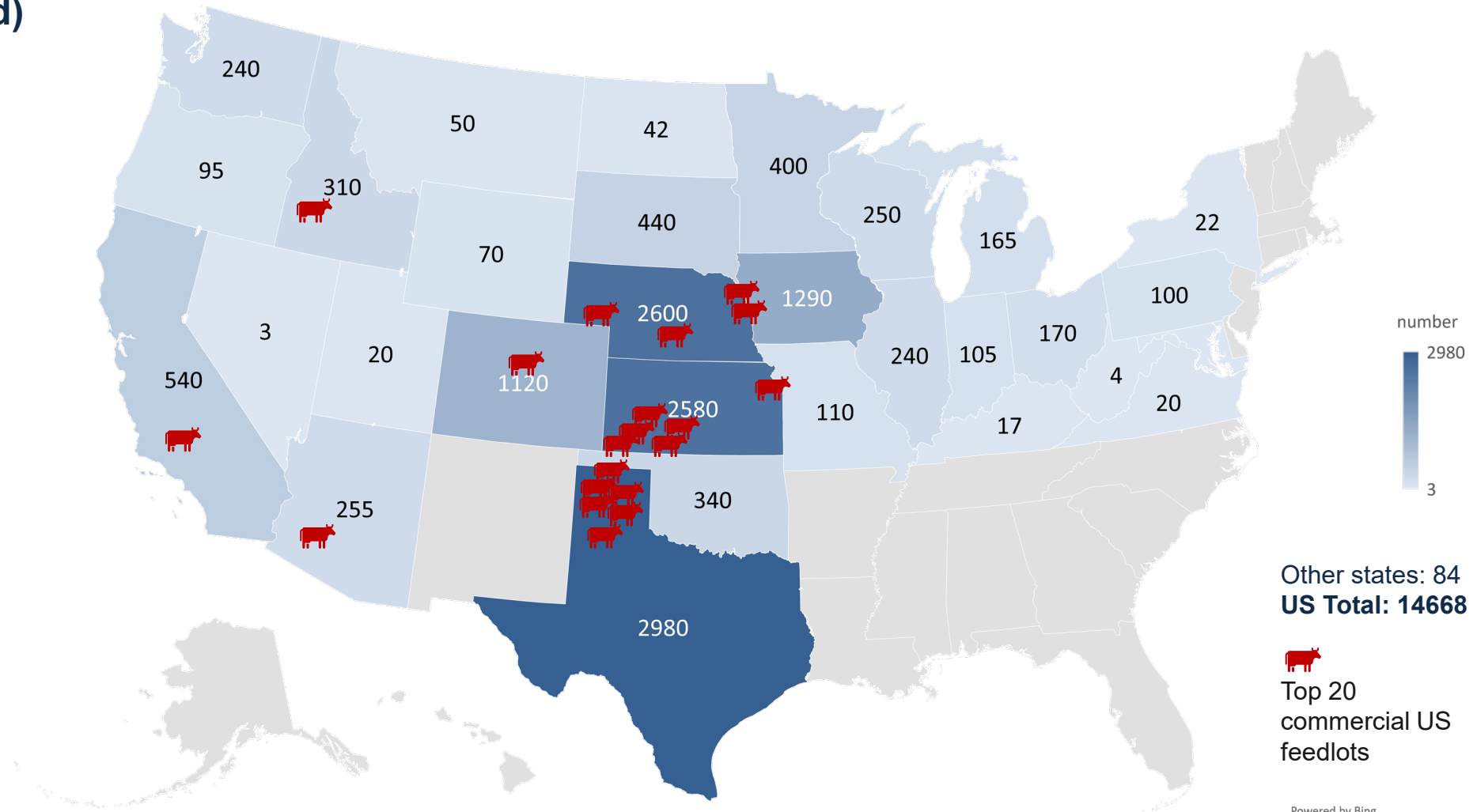
Before expiration

Offset

- *If LONG = sell futures*
- *If SHORT = buy futures*

Cattle on feed – January 1, 2020

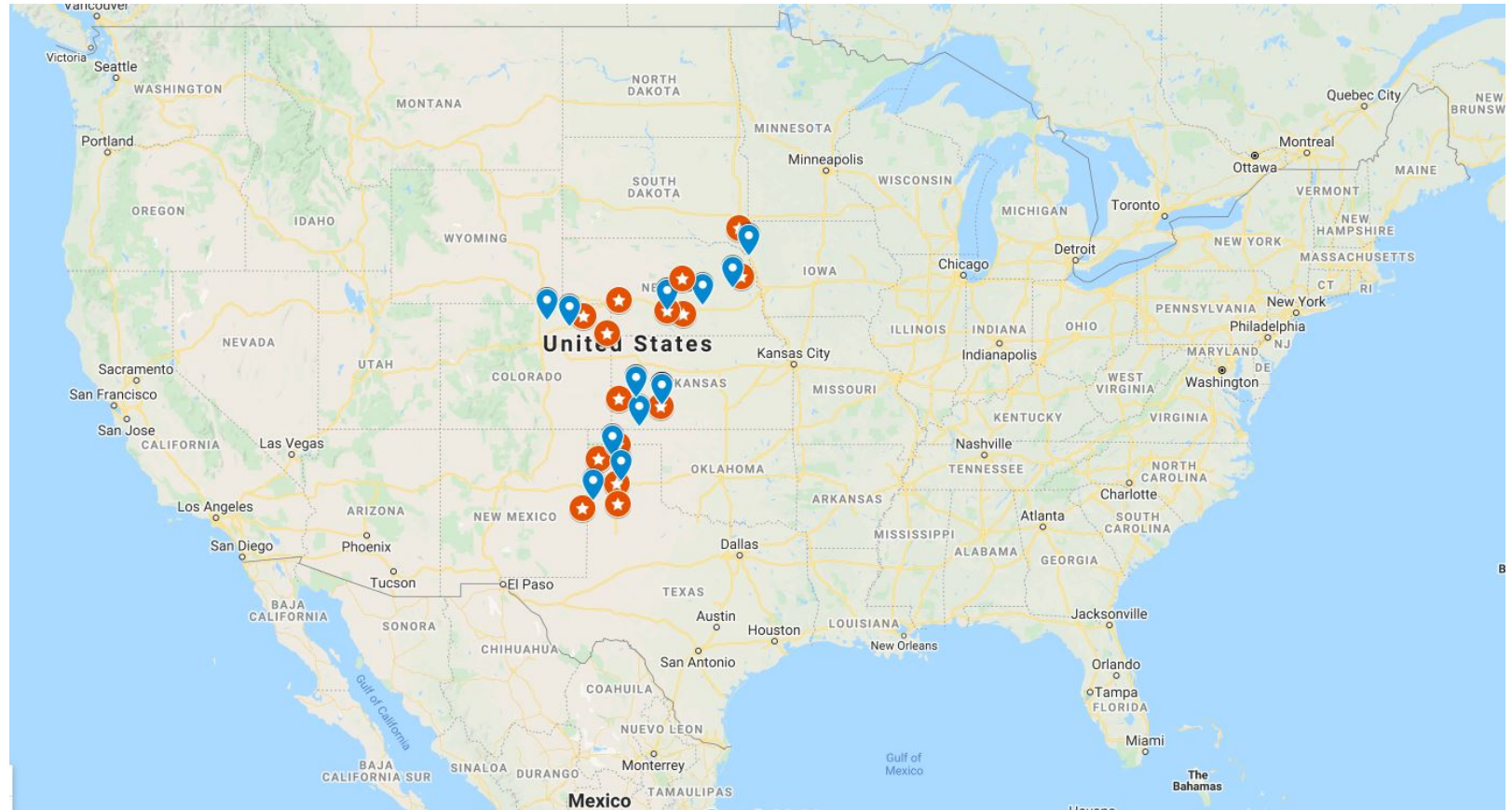
(1,000 head)



Livestock Marketing Information Center
Data Source: USDA-NASS

Powered by Bing
© GeoNames, HERE, MSFT

Live Cattle Delivery map



Source: CME Group
<https://www.cmegroup.com/trading/agricultural/livestock/livestock-delivery-overview.html>

Live Cattle Delivery points

Territories

Colorado

- Sterling Livestock Commission Co.
- Ranchland Livestock Auction

Iowa/Minnesota/South Dakota

- Sioux Falls Regional Livestock

Kansas

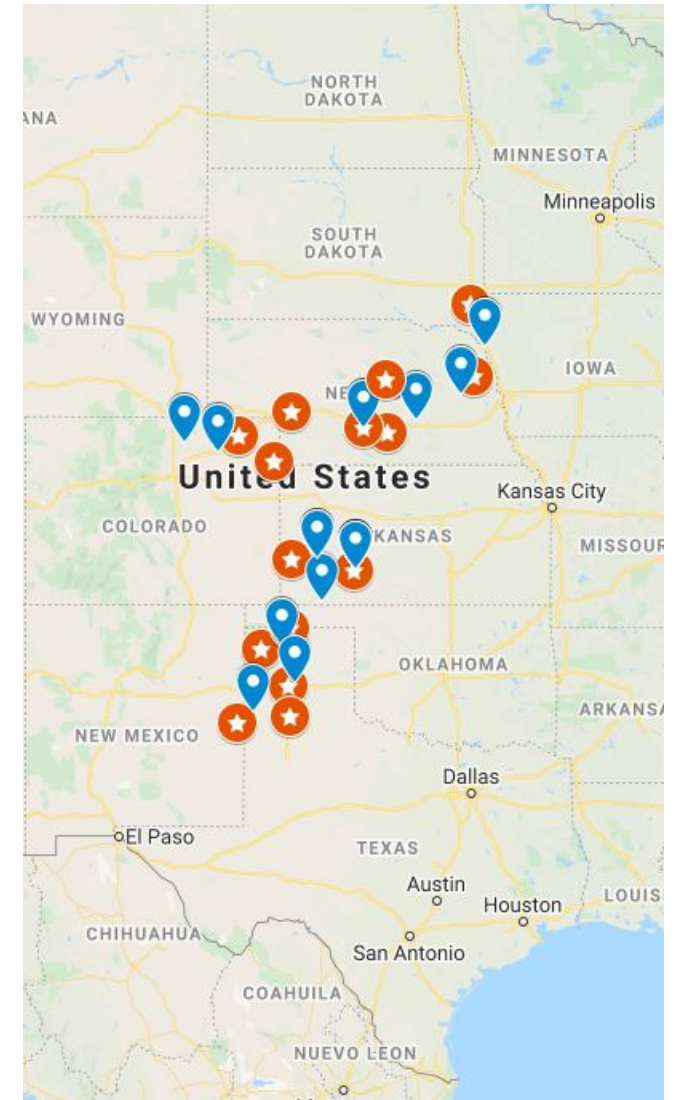
- Winter Livestock
- Syracuse Commission Co., Inc.

Nebraska

- Huss Livestock Market, LLC
- Lexington Livestock Market, LLC
- Ogallala Livestock Auction Market, Inc
- Burwell Livestock Market II, Ltd

Texas/Oklahoma/New Mexico

- Amarillo Livestock Auction
- Clovis Livestock Auction, Inc
- Cattleman's Livestock Commission Company
- Texhoma Livestock Auction, LLC
- Tulia Livestock Auction



CME Live Cattle contract specifications

LIVE DELIVERY

Par delivery:

- 40,000 lbs. of Yield Grade 3, 65% Choice, 35% Select quality grade live animals with no individual weighing less than 1,050 pounds or more than 1,350 for heifers or more than 1,500 lbs. for steers. Par delivery unit shall have an average hot yield of 63%.

Adjustments:

- Steers weighing more than 1,500 lbs. but less than or equal to 1,550 lbs. are deliverable at a discount.
- Hot yields, yield grades, and quality grades that are less than or greater than par are deliverable with associated premiums and discounts with some exceptions noted below.

Undeliverable:

- Estimated hot yield less than 60%.
- Unmerchantable, crippled, sick, damaged or bruised, or which for any reason do not appear to be in satisfactory condition.
- Dairy bred, showing any prominent hump, heiferettes, bred heifers, or cows.



CME Live Cattle contract specifications

CARCASS DELIVERY

Par delivery:

- 40,000 lbs. of Yield Grade 3, 65% Choice, 35% Select quality grade live animals with no individual carcass weighing less than 600 pounds or more than 900 pounds. Par delivery unit shall have an average hot yield of 63%.

Adjustments:

- Individuals weighing less than 600 or greater than 900 pounds will be subject to discount.
- Hot yields, yield grades, and quality grades that are less than or greater than par are deliverable with associated premiums and discounts with some exceptions noted below.
- Hardbone, dark cutter, or ungradable characteristics will be subject to discount.

Undeliverable:

- Unmerchantable, crippled, sick, damaged or bruised, or which for any reason do not appear to be in satisfactory condition. Liver condemnations in excess of 20%.
- Dairy bred, showing any prominent hump, heiferettes, bred heifers, or cows.
- Any animal with a prominent hump on the forepart of the body estimated to exceed 2 inches.



Upcoming changes

Contract specifications

10101. Contract specifications

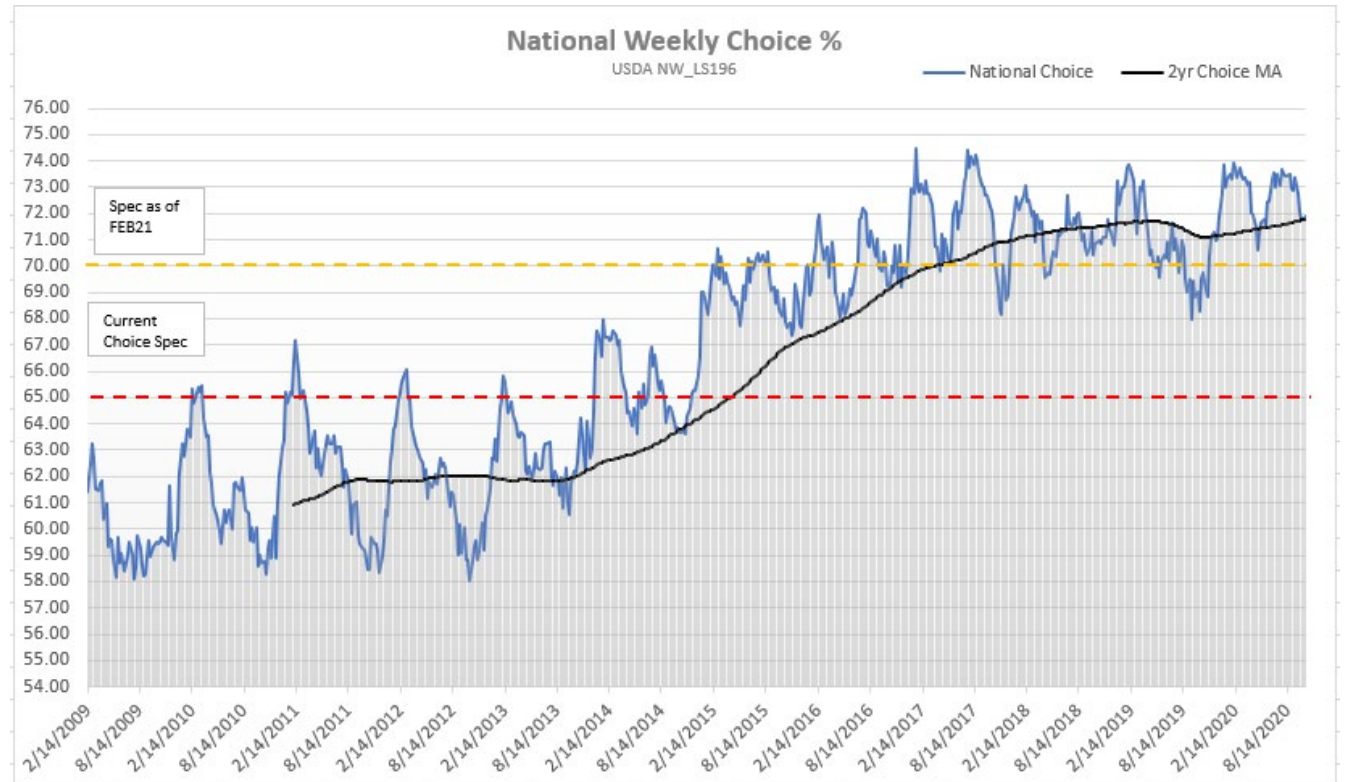
(FOR ALL CONTRACT MONTHS COMMENCING WITH FEBRUARY 2021 and BEYOND)

Each futures contract shall be for **70% Choice, 30% Select**, Yield Grade 3 live steers or live heifers, as defined by the United States Department of Agriculture (USDA) "Official United States Standards for Grades of Slaughter Cattle", or producing 70% Choice, 30% Select, Yield Grade 3 steer or heifer carcasses, as defined by "Official United States Standards for Grades of Carcass Beef". All cattle must be born and raised exclusively in the United States and delivering sellers must sign an Exchange affidavit attesting that the cattle were born and raised in the United States. The affidavit is to be considered part of the Certificate of Delivery and must accompany the Certificate at all times.

Upcoming changes - Quality grade

Keeping up with the industry

- Since 2017, we have changed the Choice quality grade three times to more closely align with the US average.
 - From 55 to 60% in 2017
 - From 60 to 65% in 2018
 - From 65 to 70% beginning in 2021
- US cattle producers have substantially increased the percentage of Choice and Prime since 2015.



Upcoming changes - Weights

Contract specifications – Live delivery at par

10103.B. Live graded deliveries – Steer weights

- Currently, steers less than 1,050 or greater than 1,550 lbs. were not deliverable. Steers 1,500-1,550 lbs. were deliverable at a discount equal to the 900-1000 lb. carcass discount from USDA LM_CT169.
- Beginning with FEB21, steers will be deliverable at par up to 1,500 lbs. Steers 1,500-1,575 are deliverable at a discount equal to the 900-1000 lb carcass and those 1,575-1,600 deliverable at a discount equal to 1000-1050 carcass.

LM_CT169
St. Joseph, MO Mon Oct 26, 2020 USDA Market News Service

5-AREA WEEKLY WTD AVERAGE DIRECT SLAUGHTER CATTLE - PREMIUMS AND DISCOUNTS
For the Week of: 10/26/2020
Value Adjustments

	Range	Wtd Avg	Change
Quality:			
Prime	0.00 - 17.00	12.43	0.28
Choice	0.00 - 0.00	0.00	0.00
Select	(20.00)- (14.00)	(16.20)	(3.64)
Standard	(40.00)- (22.00)	(31.58)	(2.52)
CAB	3.00 - 10.00	5.36	0.00
All Natural	24.00 - 32.00	27.92	0.00
NHTC	18.50 - 26.00	22.62	0.00
Dairy - Type	(14.00)- 0.00	(4.18)	0.00
Bullock/Stag	(55.00)- (25.00)	(40.63)	0.00
Hardbone	(55.00)- (20.00)	(36.48)	(1.15)
Dark Cutter	(55.00)- (25.00)	(36.87)	0.00
Over 30 Months of Age	(40.00)- (10.00)	(16.13)	0.00
*Cutability Yield Grade, Fat/Inches			
1.0-2.0 < .10"	4.00 - 8.00	5.43	0.00
2.0-2.5 < .20"	2.00 - 3.00	2.47	0.00
2.5-3.0 < .40"	0.00 - 3.00	2.37	0.00
3.0-3.5 < .60"	0.00 - 0.00	0.00	0.00
3.5-4.0 < .80"	0.00 - 0.00	0.00	0.00
4.0-5.0 < 1.2"	(15.00)- (8.00)	(10.36)	0.00
5.0/up > 1.2"	(20.00)- (10.00)	(14.96)	0.00
Weight:			
400-500 lbs	(40.00)- (15.00)	(25.58)	0.00
500-550 lbs	(40.00)- (12.00)	(22.83)	0.00
550-600 lbs	(15.00)- 0.00	(2.98)	0.00
600-900 lbs	0.00 - 0.00	0.00	0.00
900-1000 lbs	(15.00)- 0.00	(0.23)	0.00
1000-1050 lbs	(15.00)- 0.00	(2.25)	0.00
over 1050 lbs	(25.00)- (10.00)	(16.86)	0.00

Upcoming Changes

Invoice Calculation Impact Sample

Current Invoice Calculation – 65% Choice, 35% Select

Head	29			Escrow	40,000	0.91650	\$36,660.00
Weight	40,755						
Average	1405.34						
Settlement	0.91650						
Territory Adjustment	0.00000						
Load Value	\$37,351.96						
Territory Adjustment	\$0.00						
Adjustments							
Hot Yield	29	\$5.15	\$149.35				
Prime	0	\$94.84	\$0.00				
Choice	21	\$21.54	\$452.34				
Select	8	-\$40.00	-\$320.00				
Standard	0	-\$215.21	\$0.00				
Sub-Standard	0	-\$537.21	\$0.00				
Y1	0	\$48.08	\$0.00				
Y2	7	\$21.43	\$150.01				
Y3	21	\$0.00	\$0.00				
Y4	1	-\$86.77	-\$86.77				
Y5	0	-\$102.26	\$0.00				
1051-1550	3	-\$2.04	-\$6.12				
Total Adjustment			\$338.81				
Adjusted Load Value			\$37,690.77				
Penalties							
Not Presented	0	1,200.00	\$0.00				
Interference	0	1,200.00	\$0.00				
Other			\$0.00				
Value of Delivered Load			\$37,690.77				

New Invoice Calculation – 70% Choice, 30% Select, Per Animal Adjustment

Head	29			Escrow	40,000	0.91650	\$36,660.00
Weight	40,755						
Average	1405.34						
Settlement	0.91650						
Territory Adjustment	0.00000						
Load Value	\$37,351.96						
Territory Adjustment	\$0.00						
Adjustments							
Hot Yield	29	\$5.15	\$149.35				
Prime	0	\$91.77	\$0.00				
Choice	21	\$18.46	\$387.66				
Select	8	-\$43.07	-\$344.56				
Standard	0	-\$218.29	\$0.00				
Sub-Standard	0	-\$540.29	\$0.00				
Y1	0	\$48.08	\$0.00				
Y2	7	\$21.43	\$150.01				
Y3	21	\$0.00	\$0.00				
Y4	1	-\$86.77	-\$86.77				
Y5	0	-\$102.26	\$0.00				
1051-1575	3	-\$2.04	-\$6.12				
1576-1600	2	-\$19.92	-\$39.84				
Total Adjustment			\$249.57				
Adjusted Load Value			\$37,601.53				
Penalties							
Not Presented	0	1,200.00	\$0.00				
Interference	0	1,200.00	\$0.00				
Other			\$0.00				
Value of Delivered Load			\$37,601.53				

CME Live Cattle futures

Overview of LIVE delivery of steers or heifers

Duties of the SHORT:

- Schedule with livestock yard
- All associated freight costs from their feedyard to the livestock yard.
- Affidavit attesting that cattle are born and raised in the US.
 - If heifer delivery: certificate regarding administration of an approved estrus-suppression additive and certificate attesting to open protocol
- All cattle must be penned, sorted, and ready for presentation to USDA grader by 9:00am on the delivery day.
 - Failure to present an acceptable load carries penalty of \$0.03 per pound for each day.
 - Failure to properly sort or otherwise slow down the process carries penalty of \$0.015 per pound.
- Par delivery of 40,000 lbs. (allowance for as low as 38,000 or up to 42,000 lbs.) of Yield Grade 3, 65% Choice / 35% Select steers or heifers.
 - Steers deliverable from 1050-1550 lbs & Heifers 1050-1350 lbs.
- Par delivery loads will have an average hot yield of 63%.
- Load must be either all steers or all heifers. Mixed loads are not deliverable.

CME Live Cattle futures

Overview of LIVE delivery of steers or heifers

Duties of the LONG:

- Determines whether to accept live-delivery or schedule carcass delivery.
- Responsible for scheduling trucking from the livestock yard to take cattle once delivery is completed.
- Subject to penalty of \$0.03 per pound should they delay, disrupt or otherwise interfere with the delivery process. Penalty is assessed at the discretion of the USDA grader.

Days for live-delivery:

- If delivery tender is submitted on any delivery day other than the last trading day (LTD), delivery required on the eighth business following tender date.
- If tender is as result of LTD, live delivery will be between the eighth and eleventh business day following LTD (Exchange may allow delivery on days 12-14 should conditions warrant).

CME Live Cattle Futures

Overview of CARCASS delivery of steers or heifers

Duties of the SHORT:

- At the election of the long, cattle are to be delivered to an approved slaughter plant that corresponds to the livestock yard on the certificate of delivery or to another plant that is no more than 225 road miles from the originating livestock yard.
- Short is responsible for freight unless:
 - Long is responsible for covering the cost of freight for the distance from the original feedyard to the plant if it exceeds the distance from the original stockyard to the delivery feedyard.
- Short is notified on the third business day following tender of the long's election of carcass delivery. At this time, the short may elect to deliver as a "large lot" and all other details regarding the delivery. Short will contact plant to schedule arrival time.
- Affidavit attesting that cattle are born and raised in the US. Load must be either all steers or all heifers. Mixed loads are not deliverable.
 - If heifer delivery: certificate regarding administration of an approved estrus-suppression additive and certificate attesting to open protocol. Par delivery of 40,000 lbs. (allowance for as low as 38,000 or up to 42,000 lbs.) of Yield Grade 3, 65% Choice / 35% Select steers or heifers.
- Par delivery loads will have an average hot yield of 63%.
- Carcasses between 600-900 lbs. are deliverable at par, with heavier carcasses delivered at a discount per USDA CT169.
- If short fails to present the required quantity of cattle to the plant on the date and at the time required, they shall be subject to a penalty of \$0.015 per pound each day until delivery is completed.

CME Live Cattle futures

Overview of CARCASS delivery of steers or heifers

Duties of the LONG:

- Must ensure that plant has capacity and can facilitate the carcass delivery. Provides all relevant contract information to CME Clearing.
- Cost of freight as noted in previous section.

Days for live-delivery:

- If delivery tender is submitted on any delivery day other than the last trading day (LTD), delivery required on any delivery day between the fourth and the eighth business following tender date.
- If tender is as result of LTD, live delivery will be between the fourth and eleventh business day following LTD (Exchange may allow delivery on days 12-14 should conditions warrant).

Contract specifications

Delivery points

- Live deliveries can occur in the following delivery territories and delivery points :

Colorado	IA-MN-SD	Kansas	Nebraska	TX-OK-NM
Sterling, CO	Worthing, SD	Dodge City, KS	Burwell, NE	Amarillo, TX
Wray, CO		Syracuse, KS	Kearney, NE	Clovis, NM
			Lexington, NE	Dalhart, TX
			Ogallala, NE	Texhoma, OK
			West Point, NE	Tulia, TX

- Carcass deliveries can occur at approved slaughter plants
 - Specific slaughter plants are associated with each live delivery location.
 - If a seller's feedlot is within 225 road miles of an approved slaughter plant that is not part of the slaughter plants associated with their chosen delivery location, the approved slaughter plant can be added by their clearing member.

Pre- assignment

Seller responsibilities

Prior to a seller's clearing member submitting an intent, the seller is required to perform the following due diligence:

- Contact the chosen stockyard to ensure the stockyard can accommodate a live cattle delivery on an available live delivery date.
 - There is only one live delivery date for any Live Cattle certificate tendered for a specific intent day. The live delivery day is the 8th business day after the date of intent/tender prior to the last trading day. After the last trading day, the live delivery date is between the 8th and 11th business day following the last trading date.
 - Each stockyard location has designated “black out” days when auctions are held and CME cattle can not be delivered.
 - <https://www.cmegroup.com/clearing/files/black-out-days-due-to-advisories.pdf>
 - Each stockyard location has a capacity limit
 - <https://www.cmegroup.com/content/dam/cmegroup/rulebook/CME/I/7/7.pdf>
- Obtain the name and number of the person at the stockyard who authorized the acceptance of the cattle at the stockyard and supply on affidavits.
- Complete and submit to clearing member and Deliveries the following affidavits:
 - Feeding affidavit attesting cattle have not been fed any animal proteins prohibited in ruminant feed by the Food and Drug Administration as described in 21 CFR 589.
 - Country of Origin affidavit attesting cattle being tendered for delivery on the CME Live Cattle Futures contract were born and raised exclusively in the United States, as previously defined by the USDA in 7 CFR 65.
 - If the seller will deliver heifers, the seller must also provide an Estrus-Suppressing Progestin Feed Additive and Open Heifer Protocol (OHP) affidavits.

Pre- assignment

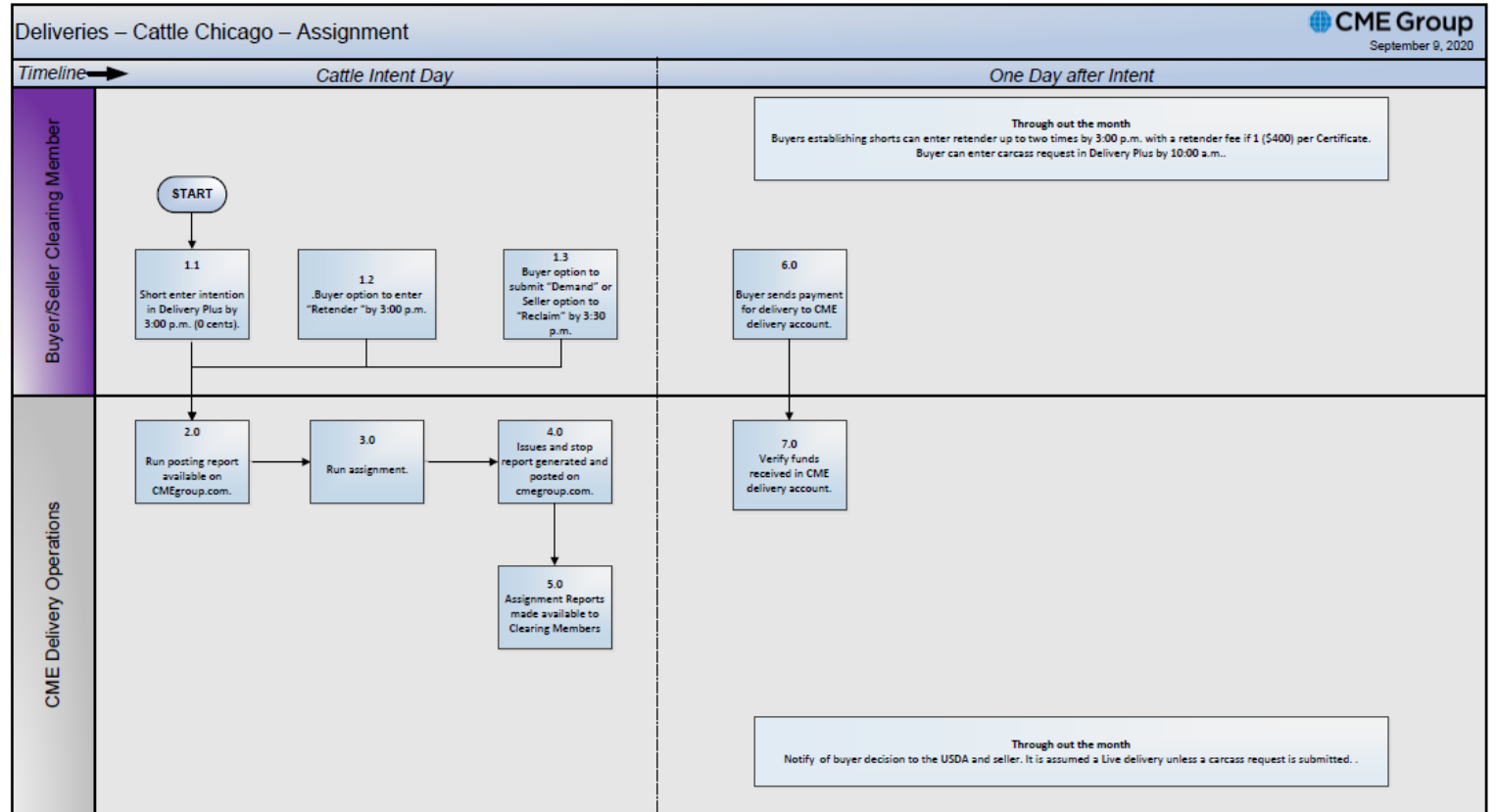
Buyer responsibilities

Beginning on the first intent date, a buyer who is long in the cattle contract could potentially be assigned a delivery.

Assignment is based on the earliest open long date a buyer has kept open.

A buyer's clearing member reports to Deliveries, the open long dates on a daily basis before 3:30 pm CT when assignment is completed.

Live Cattle lifecycle



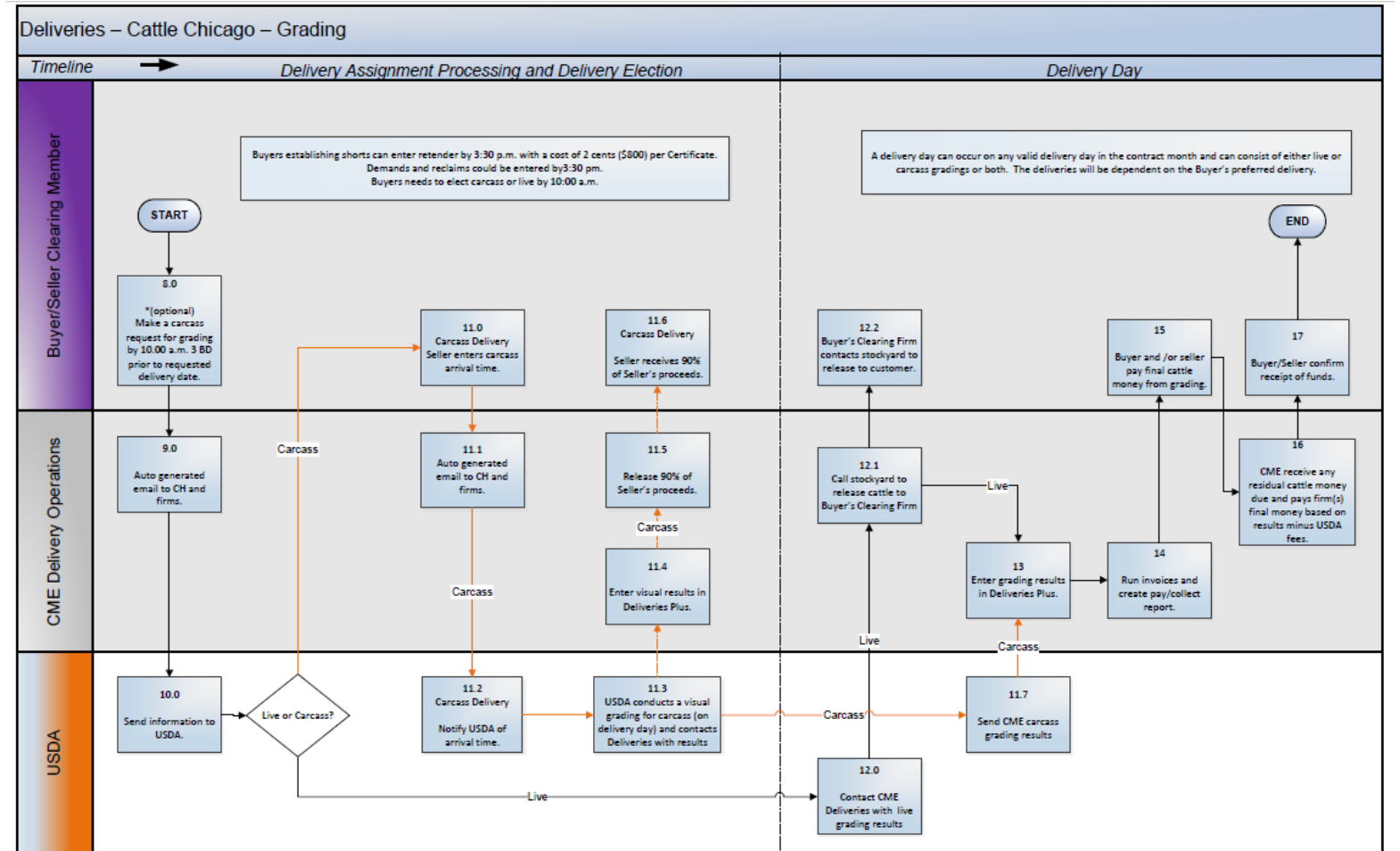
Definitions

Retender - A clearing member representing a long that is assigned a Certificate may retender that Certificate. The Certificate may only be retendered twice.

Demand - A clearing member representing a long may present a Demand Notice for the purpose of securing priority in the assignment of a Certificate of Delivery.

Reclaim - A clearing member representing a short that has tendered a Certificate may reclaim that Certificate upon the first or second retender if there is no Demand Notice issued for that Certificate.

Live Cattle lifecycle



Deliveries

Live

- Every cattle certificate of delivery has one eligible live delivery date based on the day the certificate is tendered for delivery. If a buyer does not elect a carcass delivery, the delivery will be designated a live delivery.
- Upon confirmation of a live delivery, Deliveries notifies the USDA of the upcoming delivery and the USDA will schedule a grader(s) to the stockyard(s).
- On the delivery day, the seller is responsible to ensure cattle are confined in a secured pen at the approved livestock yard prior to 9:00 a.m. local time on the day of delivery. In addition, the cattle must stand without feed however should receive water during the interval between 9:00 a.m. and grading. However, in no event shall the cattle receive feed or water during the interval between grading and weighing.
- The USDA will weigh and inspect the cattle and submit grading results to Deliveries.
- Deliveries will call the stockyard and release the cattle from approved gradings to the Buyer's clearing member.
- The Buyer's clearing member will call the stockyard to release the cattle to the underlying customer.
 - The process is time sensitive as the Buyer is at the stockyard awaiting the release of cattle.
- Deliveries will enter the grading the results within our Deliveries Plus application to produce the final grading invoice. Based on the final invoice, the Buyer's clearing member will submit the additional due and upon receipt of the funds, Deliveries will send the Seller's clearing member the total due to the Seller.
 - All payments are minus applicable USDA fees.

Deliveries

Carcass

- On the day of delivery, the USDA arrives at the slaughter plant to perform a visual inspection of the cattle ensuring the cattle make weight and ensure general conformance with CME's live cattle contract.
 - If the cattle pass the visual inspection, Deliveries will release 90% of the Seller's proceeds.
 - If the cattle do not pass the visual inspection, the USDA provides Deliveries an explanation of the failure which is relayed to the Seller and the 90% is not released until a visual inspection is passed. Reasons for a failure have included there is not enough cattle, overweight/underweight, over 30 months, prominent hump, or sickness.
- Once the visual inspection is completed the cattle are held in a holding pen until slaughter. After slaughter, the USDA will grade the carcasses as per the rules of the Exchange.
- After the carcass inspection is completed, the USDA sends the grading results to Deliveries for processing.
- The grading results are entered in Deliveries Plus for the purposes of calculating the final invoice. If the Buyer has an additional due, the Buyer's clearing member will send the funds to Deliveries. Upon receipt of all final monies due, Deliveries will send the final Seller's delivery payment to the Seller's clearing member.
 - All payments are minus applicable USDA fees.

Disclaimer

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A large banner with a dark red background. On the left, a large white letter "C" contains a silhouette of a cow's head. To the right of the "C", the text "attle & Carcass" is written in a white serif font, and "TRAINING" is written below it in a white sans-serif font. The background of the banner is a photograph of several cows, with one cow in the foreground looking directly at the camera. Two cows in the background have identification tags with the numbers "2624" and "2599".

Cattle & Carcass TRAINING

Thank you for participating

For more information on this webinar series and the USDA Cattle and Carcass Training Centers, visit:

www.ams.usda.gov/grades-standards/beef/cattle-carcass-training-centers