SUBMISSION COVER SHEET

***IMPORTANT*: Check box if Confidential Treatment is requested** ☐

Registered Entity Identifier Code (optional): 19-329

Organization: Chicago Mercantile Exchange Inc. ("CME")

Filing as a: ☒ **DCM** ☐ **SEF** ☐ **DCO** ☐ **SDR**

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 08/22/19 Filing Description: Amendments to the Live Cattle Futures Contract and Listing Delay of the February 2021 Contract Month Live Cattle Futures and Options on Live Cattle Futures Contracts

Please note only ONE choice allowed per Submission.
Organization Rules and Rule Amendments

☐	Certification	§ 40.6(a)
☐	Approval	§ 40.5(a)
☐	Notification	§ 40.6(d)
☐	Advance Notice of SIDCO Rule Change	§ 40.10(a)
☐	SIDCO Emergency Rule Change	§ 40.10(h)

Rule Numbers:

New Product **Please note only ONE product per Submission.**

☐	Certification	§ 40.2(a)
☐	Certification Security Futures	§ 41.23(a)
☐	Certification Swap Class	§ 40.2(d)
☐	Approval	§ 40.3(a)
☐	Approval Security Futures	§ 41.23(b)
☐	Novel Derivative Product Notification	§ 40.12(a)
☐	Swap Submission	§ 39.5

Product Terms and Conditions (product related Rules and Rule Amendments)

☒	Certification	§ 40.6(a)
☐	Certification Made Available to Trade Determination	§ 40.6(a)
☐	Certification Security Futures	§ 41.24(a)
☐	Delisting (No Open Interest)	§ 40.6(a)
☐	Approval	§ 40.5(a)
☐	Approval Made Available to Trade Determination	§ 40.5(a)
☐	Approval Security Futures	§ 41.24(c)
☐	Approval Amendments to enumerated agricultural products	§ 40.4(a), § 40.5(a)
☐	"Non-Material Agricultural Rule Change"	§ 40.4(b)(5)
☐	Notification	§ 40.6(d)

Official Name(s) of Product(s) Affected: Live Cattle Futures, Live Cattle TAS Futures, Live Cattle Options, and Live Cattle Calendar Spread Options.

Rule Numbers: CME Rulebook Chapters: 101, 101A

Christopher Bowen
Managing Director and Chief Regulatory Counsel
Legal Department

August 22, 2019

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: CFTC Regulation 40.6(a) Certification. Notification Regarding Amendments to the Live Cattle Futures Contract and Listing Delay of the February 2021 Contract Month Live Cattle Futures and Options on Live Cattle Futures Contracts.
CME Submission No. 19-329

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. ("CME" or "Exchange") is notifying the Commodity Futures Trading Commission ("CFTC" or "Commission") that it is self-certifying amendments to the Live Cattle Futures and Options on Live Cattle Futures contracts (the "Contracts") set forth in the table below effective on trade date Monday, September 9, 2019:

Contract Title	Rulebook Chapter	Clearing Code	CME Globex Code	Floor Code	CME ClearPort Code
Live Cattle Futures	101	48	LE	-	48
Options on Live Cattle Futures	101A	48	LE	CK / PK	48

Specifically, the Exchange will:

1. implement a new par quality grade of delivered cattle of 70% choice, 30% select steers or heifers (the "New Grade") of the Live Cattle Futures contract commencing with the February 2021 contract month and beyond;

2. update the delivery weights for live-delivered steers to allow for delivery of animals up to 1,600 pounds of the Live Cattle Futures contract commencing with the February 2021 contract month and beyond. Delivery remains at par between 1,050 up to 1,500 pounds. Steers weighing more than 1,500 pounds but less than or equal to 1,575 pounds shall be deliverable at an adjustment equal to the 900-1000 lbs. factor from the USDA LM_CT155. Steers weighing more than 1,575 pounds but less than or equal to 1,600 pounds shall be deliverable at an adjustment equal to the 1000-1050 lbs. factor from the USDA LM_CT155; and

3. delay the listing of the February 2021 contract month of the Contracts until the effective date of this submission, Monday, September 9, 2019 (collectively, the "Rule Amendments").

The specifications for delivery of a live or carcass-graded Live Cattle Futures contract include a fixed percentage of yield and quality grades as defined by the USDA. In 1976, yield grade requirements were incorporated into the Live Cattle contract; yield grades 1, 2, 3, and 4 were classified as deliverable. In 1995 a par unit was further defined, and quality grades were introduced to the par standard of a delivery unit. To reflect the cattle produced in the underlying physical market, par standards were set to yield grade 3 and quality grade of 55% Choice / 45% Select.

Deliveries from this point on were adjusted for variations from par utilizing the "National Weekly Direct Slaughter Cattle – Premiums and Discounts" report published by the USDA ("LM_CT155"). From its 1995 inception to October 2017, the quality grade specification of the contract remained static at 55% Choice / 45% Select.

To match the quality improvement in the U.S. herd, the October 2017 contract increased the par quality grade to 60% Choice / 40% Select and the October 2018 contract adjusted the par quality grade another 5% to 65% Choice / 35% Select.

Despite the changes in 2017 and 2018, the National ("NATL") average Choice quality grade published on the USDA NW_LS196 has continued to trend higher.

Figure 1 shows the National ("NATL") average percentage of beef graded as USDA Choice, which remained between 50% and 55% from 1996 until 2009 when it increased beyond 60%. From 2009 to the present, the average Choice grade percentage increased from 60% to as high as 74%.

Figure 2 shows the weekly NATL Choice grade percentage as well as the Choice grade of Live Cattle Futures.

As referenced above, the Exchange has made necessary adjustments to the par value of the Live Cattle Futures contract to ensure that it adequately reflects most of the cattle transacted in the underlying cash market. The U.S. cattle producing sector has dramatically improved the percentage of high-quality graded cattle it produces, as reflected by the NATL Choice grade reported by the USDA. The par quality grade of the Live Cattle Contract has remained static while the NATL has increased, resulting in a sizable difference between the two. The difference between the two has been as much as 15% as detailed in **Figure 3**.

To ensure that the par quality grade of the Live Cattle Futures contract is more closely aligned with the average quality being transacted on the cash market, the Exchange will implement the New Grade effective with the listing of the February 2021 contract month and all contract months thereafter.

The Exchange received feedback from cattle producers stating that to achieve higher quality grades, steers require more weight and need to be fed longer. In recognition of the correlation between weight and quality grade, the Exchange will increase the upper limit for live-delivery of steers by 50 pounds.

The Exchange reviewed the designated contract market core principles ("Core Principles") as set forth in the Commodity Exchange Act ("the Act") and identified that the Rule Amendments may impact the following Core Principles:

- **<u>Contracts Not Readily Subject to Manipulation</u>:** Implementation of the Rule Amendments is intended to more accurately reflect the trend of higher quality cattle being sold in the cash cattle market. The Exchange believes that the Rule Amendments will not significantly impact any region from being able to deliver cattle into the futures market.

- **<u>Availability of General Information</u>:** The Exchange will amend the CME rulebook accordingly on the effective date. The Exchange will make the Amendments publicly available on the CME Group website. In addition, the Exchanges will publish a Special Executive Report ("SER") to advise the marketplace of the Rule Amendments. The SER will also be posted on the CME Group website.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.6(a), the Exchange hereby certifies that the Rule Amendments comply with the Act, including regulations under the Act.

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The Exchange sought a significant amount of feedback from market participants regarding the Rule Amendments. Opposing views indicated that certain regions may struggle to achieve the New Grade during certain times of the year. There is a substantial difference between the Live Cattle Futures contract par specifications and the National average. CME believes that the Rule Amendments will ensure that the Live Cattle Futures contract provides a more accurate hedging tool for market participants.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at http://www.cmegroup.com/market-regulation/rule-filings.html.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments:
Appendix A: Figure 1: Monthly Average USDA Choice Grading Percentage; Figure 2: National Weekly Choice Grading Percentage vs. CME; Figure 3: Yearly Difference Between CME Choice Grading Percentage and National Average

Appendix B: Amendments to CME Chapter 101 ("Live Cattle Futures") (Entire Chapter) (Effective September 9, 2019 – Under Separate Cover)

Appendix C: Amendments to CME Chapter 101 ("Live Cattle Futures") (Entire Chapter) (Effective January 4, 2021 – Under Separate Cover)

Appendix D: Deliverable Supply Analysis – CME Live Cattle Futures

Appendix A

Figure 1: Monthly Average USDA Choice Grading Percentage.

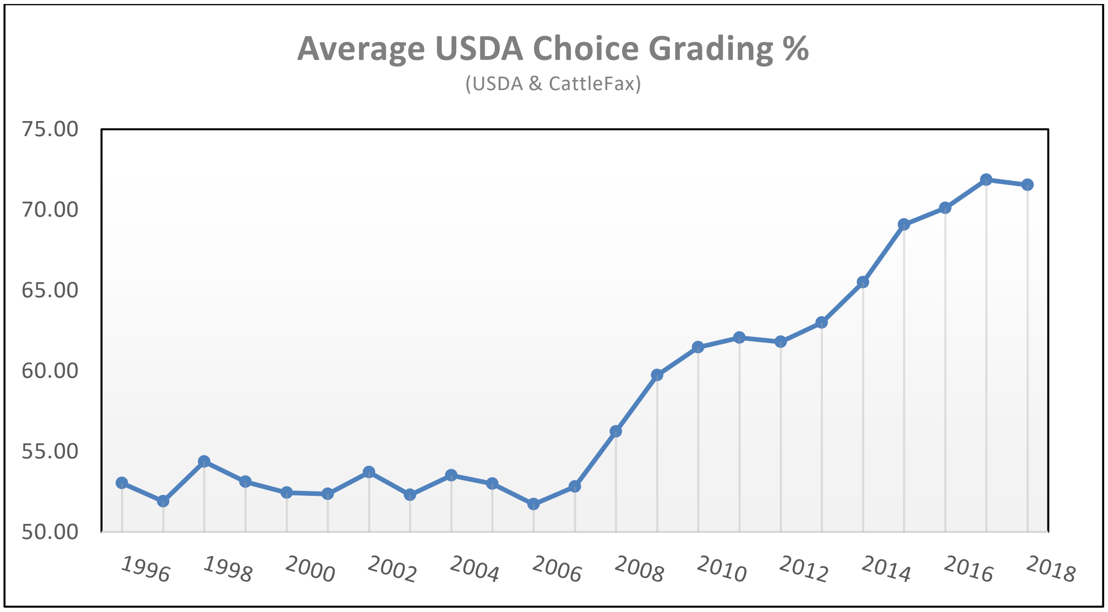


Figure 2: National Weekly Choice Grading Percentage.

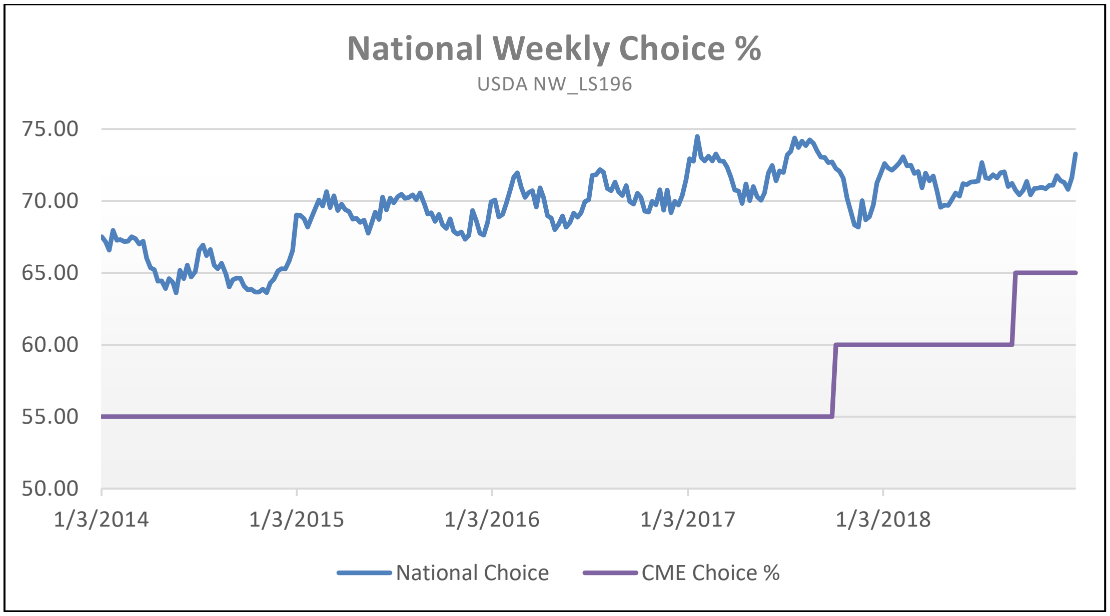
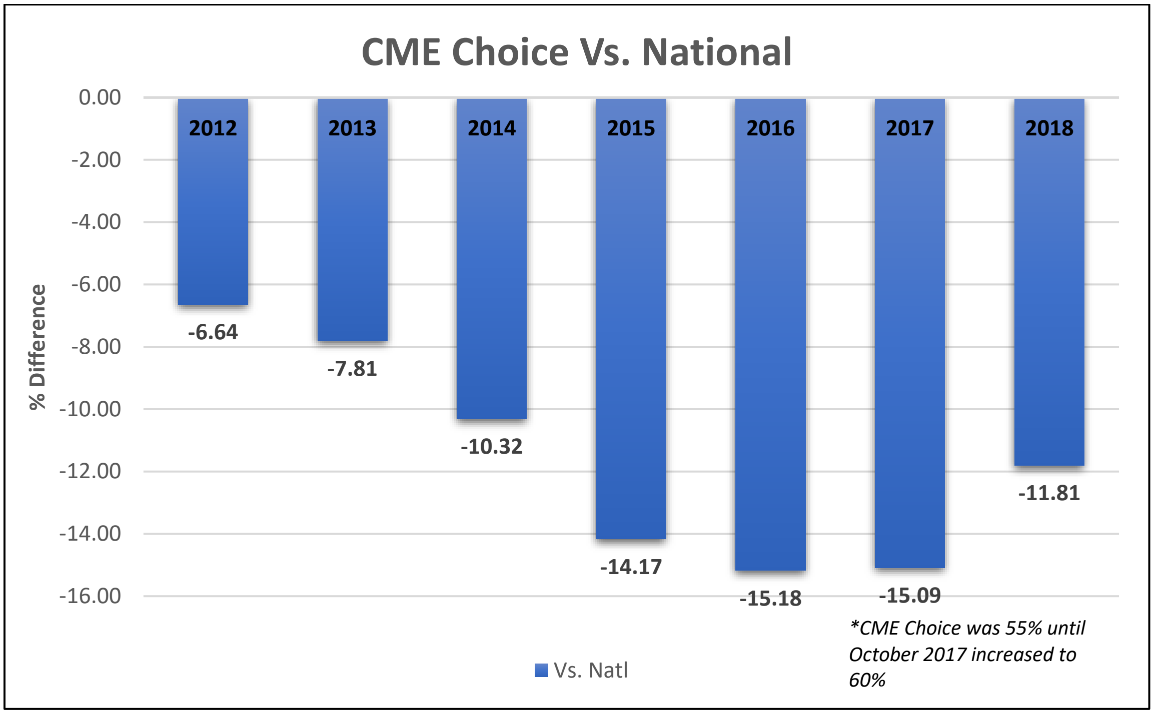


Figure 3: Yearly Difference Between CME Choice Grading Percentage and National Average.



Appendix B

CME Rulebook

Chapter 101

Live Cattle Futures

(additions underscored; deletions ~~struck through~~)

(Entire Chapter, Effective September 9, 2019 – Under Separate Cover)

Appendix C

CME Rulebook

Chapter 101

Live Cattle Futures

(additions underscored; deletions ~~struck through~~)

(Entire Chapter, Effective January 4, 2021 – Under Separate Cover)

Appendix D

Analysis of Deliverable Supply
Live Cattle Futures

Overview:

Chicago Mercantile Exchange Inc. ("CME" or "Exchange") conducted a review of the cash market underlying its Live Cattle Futures contract (the "Contract") which is defined as beef bred steers and heifers sold from feedlots to livestock yards (live-graded deliveries) or slaughter plants (carcass-graded deliveries) and herein referred to as "fed cattle."

Background:

The Contract is a physically-deliverable futures contract whose terms are satisfied by the delivery of fed cattle meeting contract specifications that have been transported to and then graded at approved locations. More specifically, the contract allows for the delivery of qualified fed steers or heifers to either CME-approved stockyards or CME-approved slaughter plants. A short position holder initiates the Contract's delivery process by tendering a certificate of delivery to the CME Clearing House designating a CME-approved stockyard to which the cattle will be tendered for delivery and the feedlot from which the cattle originate. The long position holder who ultimately receives the delivery notice may accept either a live-graded delivery at that designated stockyard or may alternatively choose to arrange for a carcass-graded delivery at a CME-approved slaughter plant corresponding to the designated stockyard or to a CME-approved slaughter plant within 225 road miles of the short position holder's originating feedlot. The delivery period – defined herein as the timeframe in which a certificate of delivery may be tendered: the first notice day through the last notice day – for an expiring month of the Contract generally lasts roughly one calendar month.[1]

According to the *National Weekly Slaughter Cattle – Committed and Delivered Cattle (USDA LM_CT142)* report published by the USDA, roughly 22.8 million head of domestically sourced cattle that had been placed on feed (including non-beef bred cattle) were slaughtered (or "delivered" in USDA report) in the United States in 2018. Of that annual number, roughly 5.7 million head of cattle (steer or heifer only) were purchased on a spot (or "negotiated" in USDA report) basis and were delivered live or dressed. Of those 5.7 million head, roughly 14% were transacted outside of the main "5-Area" region (defined further in the "Data Sources section of this document), bringing the number down to roughly 4.9 million head. Further, eliminating roughly 6.6%[2] of cattle that were either too light (less than 1,050 pounds) or too heavy (greater than 1,350 pounds for heifers or 1,600 pounds for steers), leaves roughly 4.58 million head. In summary, roughly 20.1% of cattle slaughtered in 2018 would fit the description of what CME would estimate as cattle that were available on a spot basis, were geographically located in a region containing at least one Contract delivery point stockyard and would have met the Contract's specifications for weight.

The vast majority of the domestic fed cattle supply is committed to slaughter plants on a non-spot basis (i.e. a forward contract, a formula-based contract, etc.) and therefore would typically not be in position to be delivered to fulfill a futures contract obligation[3]. Some classes of cattle such as bulls and cows are not representative of the broader cash fed cattle market due to quality, age, and size differences relative to that of steers and heifers and are therefore not deliverable to satisfy the Contract and are not used in this analysis.

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[1] Rule 10104.A in CME Chapter 101 indicates that Certificates of Delivery can be tendered no sooner than the business day following the first Friday of the contract month and not after the third business following contract expiration. For example, the August 2017 Live Cattle Futures contract had a first notice day of August 7, 2017 and a last notice day of September 6, 2017.

[2] In order to account for weight variance, CME used the standard deviation calculated in the study done by the University of Minnesota (http://ageconsearch.umn.edu/bitstream/11841/1/pa03di01.pdf) and applied that to the three-year average live weights from the *USDA 5 Area Monthly Weighted Average Direct Slaughter Cattle* (USDA LM_CT180).

[3] Some slaughter plant operators have indicated that their formula agreements with feedlots include an option that allows the feedlot to deliver the cattle versus futures positions if market conditions warrant. However, we are not including formula transacted cattle in our deliverable supply estimate as industry sources indicate this option is rarely utilized.

The sellers of fed cattle are feedlot operators and the buyers of fed cattle are typically slaughter plant operators ("packers"). Most feedlots are family or individually operated, indicating a low level of industry concentration at the producer level.[4] However, there is a high amount of industry concentration amongst the beef packers: according to the National Cattlemen's Beef Association ("NCBA"), the four largest beef packers represented roughly 90% of the daily beef slaughter capacity among the top ten largest beef packers in the U.S. in 2015.[5]

The fed cattle market is primarily domestic: only about 1% of slaughtered steers and heifers in the U.S. were imported by packers in 2018 according to the *National Weekly Slaughter Cattle – Committed and Delivered Cattle* report. According to the USDA Foreign Agricultural Service, only 243,795 head of any type of cattle were exported out of the U.S. in 2018, representing only a tiny fraction of the total inventory of U.S. cattle.

Fed Cattle are primarily graded in two ways that affect their economic value: quality and yield. Quality grading reflects the expected eating characteristics of the meat (tenderness, flavor, etc.) once it is cooked. The yield grade reflects the estimated amount of lean, edible meat produced by a carcass.[6] Inspecting fed cattle on a carcass-graded basis leads to more precise grading because the grader can review the actual carcass, allowing for more accurate premiums and discounts to be assigned to the base price paid for the cattle by the packer. When cattle are inspected on a live-graded basis, the grader must make estimations on future carcass grading outcomes based on external visual indicators when inspecting the live animal. According to the *5-Area Weekly Weighted Average Direct Slaughter Cattle (LM_CT150)* report, 67% of fed cattle marketed on a spot / negotiated transaction were priced on a live-graded basis between 2016 and 2018, while only 13% of cattle marketed on a formula price agreement were graded on a live basis between 2016 and 2018 (*LM_CT145 5 Area Weekly Direct Slaughter Cattle – Formula, Grid and Contract Purchases* report).

The Exchange believes that the best method for assessing the availability of fed cattle meeting Contract specifications is to measure the observed transactions of fed cattle between feedlots and packers over time. CME believes that these transactions are indicative of available market-ready fed cattle at any given time given their non-storable nature. The purchases of cattle by packers are subject to livestock mandatory price reporting legislation and therefore the Exchange's analysis of the deliverable supply of fed cattle makes use of mandatorily reported volumes of packer purchases of all grades of beef bred steers and heifers priced on either a live or dressed basis as aggregated and published by the United States Department of Agriculture ("USDA") Agricultural Marketing Service ("AMS") division on a monthly basis.[7]

<u>Live Cattle Futures Delivery Capacity</u>:

The delivery territories for delivery against the Live Cattle Futures contract are Colorado; Iowa/Minnesota/South Dakota; Kansas; Nebraska; and Texas/Oklahoma/New Mexico. Cattle may be delivered at par at any of the approved stockyard or slaughter plants with one exception currently: any deliveries whose certificates of delivery were originally tendered for delivery at Worthing, SD to satisfy an October futures contract will be made at a \$1.50/cwt discount to the short position holder making delivery.[8]

USDA AMS provides graders at the stockyard delivery points at the scheduled time of delivery to facilitate deliveries where the long position holder receiving delivery has selected that final settlement and transfer of ownership of the cattle be completed on a live-graded basis. The USDA provides input to the Exchange on their staffing as well as each stockyard's infrastructure (i.e. scales, employees) which are factors in our

[4] According to the 2012 USDA Census of Agriculture, "In 2012, 80 percent of feedlots were family or individually operated." https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Cattle/Cattle_Highlights.pdf.

[5] See page 48 of this NCBA document: http://www.beefusa.org/CMDocs/BeefUSA/Producer%20Ed/2015%20CattleFax%20section.pdf.

[6] For more information on beef grading, it is suggested to read *Beef Grading* by Daryl Tatum of Colorado State University: http://www.beefresearch.org/cmdocs/beefresearch/beef%20grading.pdf.

[7] Legislation regarding the mandatory reporting of cattle can be found in 7 CFR Part 59, Subpart B - Cattle Reporting: https://www.gpo.gov/fdsys/pkg/CFR-2016-title7-vol3/pdf/CFR-2016-title7-vol3-part59-subpartB.pdf.

[8] Please see CME Submission No. 16-304 for further information on the discount applied to deliveries originally tendered to a stockyard in Worthing, SD in the October contract month: http://www.cmegroup.com/market-regulation/rule-filings/2016/08/16-304.pdf.

self-imposed daily limits on the maximum number of contracts that can be delivered on any given day to each stockyard. Based on delivery constraints identified by the USDA, CME instituted a daily limit on how many certificates of delivery could be tendered for delivery at any given stockyard. The daily limits at each stockyard are based on USDA grader estimations on the size and quality of the stockyard as well as their own staffing availability for grading. It is important to note that the daily maximum number of contracts allowed per stockyard by the Exchange is typically lower than the stockyards' actual maximum daily capacity. CME believes that this helps remove the risk of delivery congestion and promotes an orderly delivery process for the Contract.

Each delivery point stockyard conducts feeder cattle sales and other types of cash market auctions each week where the facility is unavailable to provide capacity in support of deliveries for the Contract. It is the responsibility of the delivering short position holder to ensure that the delivery point stockyard will be able to receive a Contract delivery prior to tendering a delivery certificate to that stockyard. However, the stockyards themselves provide an expected schedule to the Exchange of days in which they expect that they will be unable to facilitate Contract deliveries, and the Exchange communicates that schedule to the market as it changes.[9]

Table 1 in the appendix of this document lists the weekly stockyard delivery capacity for the Contract and blackout days as communicated to the Exchange by the stockyards.

The approved slaughter plant delivery points for the Contract do not have a limit on the number of deliveries that they may receive because the short position holder will be able to make delivery at a stockyard even if the long is unable to schedule a delivery at any of the plants associated with that stockyard. It is the responsibility of the long position holder to schedule a delivery to be received at a slaughter plant if the long prefers for the final settlement of the delivery to be done by a carcass grading instead of by live grading at the originally tendered stockyard. Slaughter plant grading capacity is not an issue because each plant is staffed by USDA meat graders on a daily basis as part of their normal business operations. Because all deliveries must be tendered to a stockyard to initiate the delivery process, the capacity of the stockyard accounts for the delivery constraint irrespective of whether the ultimate delivery consists of live-graded or carcass-graded beef cattle. Further, CME delivery data shows that there were 357 delivered loads between 2016 and 2018. Of those, 337 (94%) were delivered on a live-graded basis while 20 (6%) were delivered carcass-graded. As indicated in the "background" section above, the majority of spot / negotiated fed cattle transactions are priced on a live FOB basis, indicating that it is expected for stockyards to receive the majority of Contract deliveries.

Data Sources:

CME's analysis of the deliverable supply of fed cattle makes use of data provided by USDA AMS within its *5 Area Monthly Weighted Average Direct Slaughter Cattle – Negotiated* report.[10]

A monthly data series is used because the delivery period for an expiring month of the Contract generally lasts roughly one calendar month. The "5 Area" geographic region – which is comprised of the "Texas/Oklahoma/New Mexico", "Kansas", "Nebraska", "Colorado", and "Iowa/Minnesota" sub-regions – is used because it most closely represents the geographical area where fed cattle are realistically expected to physically be in a position to be delivered to a delivery point stockyard. Only negotiated cattle were used in this analysis because all other forms of marketing fed cattle result in those cattle being committed to another party and therefore reasonably assumed to be unavailable for delivery by a short position holder of the Contract. Steers and heifers priced on both a live or dressed basis are used in this analysis because both steers and heifers are deliverable and can be graded on either a live or a carcass/dressed basis to satisfy Contract delivery terms. All grades are utilized in this analysis because the four main USDA quality grades of cattle (prime, choice, select, standard) and most predominant yield grades (grades 1 – 5) are deliverable and the terms of the Contract make use of the most current USDA published *National Weekly Direct Slaughter Cattle – Premiums and Discounts* report to assess quality grade and yield grade premiums and discounts on delivered cattle accordingly.

[9] Please see the latest such notice here: https://www.cmegroup.com/clearing/files/black-out-days-due-to-advisories.pdf

[10] The most current "5 Area monthly Weighted Average Direct Slaughter Cattle – Negotiated" Report can be found at this static location on the USDA's website: https://www.ams.usda.gov/mnreports/lm_ct180.txt.

USDA AMS maintains a historical database of its mandatory price reports on its website at the following location: https://mpr.datamart.ams.usda.gov/.

Please see **Table 2** in the Appendix at the end of this document for a list of delivery point stockyard locations and their associated geographical cash market regions, all of which are represented within 5 Area price reports published by USDA AMS.

Calculation Methodology for Cattle Available for Delivery Pursuant to Contract Specifications:

The following steps using the *5 Area Monthly Weighted Average Direct Slaughter Cattle – Negotiated* report allow for the estimate of the fed cattle available for delivery pursuant to Contract specifications:

1. Obtain the head count and average weight for "Total all grades" for:
    a. Live FOB Basis – Beef Breeds, Steers
    b. Live FOB Basis – Beef Breeds, Heifers
    c. Dressed Delivered Basis – Beef Breeds, Steers
    d. Dressed Delivered Basis – Beef Breeds, Heifers
2. Convert the dressed weights to 'live equivalent weights' by dividing the dressed weights by 63% (the par yield of carcass graded cattle in the Contract).
3. Multiply each category's head count by its live-equivalent weight to get the category's total live-equivalent weight for the month, then add each category's total monthly live-equivalent weight together to get a monthly total live equivalent weight.
4. Divide the total live equivalent weight for the month by 40,000 lbs. (the size of the futures contract) to determine the number of cattle available for delivery during a given contract month in contract equivalents.

Analysis of Deliverable Supply:

Please see **Table 3** in the Appendix at the end of this document for a monthly estimate of fed cattle available for delivery pursuant to Contract specifications for the previous three years using the data and calculation methodology described above.

The Exchange estimates that the average monthly availability of fed cattle meeting Contract specifications over the previous three years was equivalent to 11,064 contracts. The Contract currently has three spot month position limits: 1) 450 contracts on the close of trading on the first business day following the first Friday of the contract month, which is 4.1% of average monthly availability of fed cattle meeting Contract specifications, and 2) 300 contracts on the close of trading on the business day immediately preceding the last 5 trading days of the contract month, which is 2.7% of average monthly availability of fed cattle meeting Contract specifications, and 3) 200 contracts on the close of trading on the business day immediately preceding the last 2 trading days of the contract month, which is 1.8% of average monthly availability of fed cattle meeting Contract specifications.

However, the ability to deliver cattle to fulfill Contract obligations is constrained by the daily live grading capacity limits imposed on the approved stockyards by the Exchange. Therefore, the Exchange measures its estimation of deliverable supply of fed cattle to fulfill Contract delivery obligations based on the maximum stockyard capacity permitted by the Exchange, inclusive of 'blackout' days in which the stockyards self-report themselves as not being available to facilitate deliveries as noted more specifically below.

The last tender date is 12 p.m. on the Business Day following the Last Trade Date ("LTD"). This allows the short to schedule delivery on one of four business days (business days 8 through 11 following LTD). Additionally, if the short is unable to obtain clearance from an approved livestock yard to make live delivery between Business Days eight through eleven following LTD, the short can request an extension from the Exchange and, if granted, delivery may occur no later than the 14th Business Day after LTD. Inclusive of potential extension days, a delivering short has a total of seven consecutive business days after LTD to schedule delivery at an approved livestock yard (Business Days eight through 14 following LTD).

Therefore, the Exchange based its estimation of deliverable supply on the maximum livestock yard capacity permitted by the Exchange during the window available for delivery at the livestock yards inclusive of blackout days in which the livestock yards self-report themselves as not being available to facilitate deliveries. Because the total daily available capacities for all approved livestock yards vary by day, the Exchange determined to measure the delivery window as an average of all available combinations of consecutive delivery days for the number of delivery days in that window.

The deliverable supply is most restrictive after LTD given that the delivery window for contracts tendered following LTD is restricted to up to seven (7) business days, or business days eight through 11 after last trade date plus 3 additional days (i.e., business days eight through 14 following LTD). The Exchange calculated the average of the consecutive seven-day live grading capacity totals to be 2,037 contracts (*see* ***Exhibit A, Table 4***). The Exchange's final spot month position limit of 200 contracts, which is in effect at the close of trading on the business day immediately preceding the last 2 trading days of the contract month, represents 9.82% of the estimated deliverable supply based on the 7-day delivery window.

The Exchange's initial spot month limit of 450 contracts is in effect at the close of trading on the first business day following the first Friday of the contract month and is reduced to 300 contracts at the close of trading on the business day immediately preceding the last 5 trading days of the contract month. Immediately prior to the spot limit step-down from 450 to 300 contracts, the available delivery window is comprised of 13 delivery days, or 5 business days prior to LTD plus business days eight through 14 following LTD, inclusive. The Exchange calculated the average of the consecutive 13-day live grading capacity totals to be 3,783 contracts (*see* ***Exhibit A, Table 6***). The Exchange's initial spot month position limit of 450 contracts represents 11.90% of the estimated deliverable supply based on the 13-day delivery window.

The Exchange's subsequent spot month limit of 300 contracts is in effect at the close of trading on the business day immediately preceding the last 5 trading days of the contract month and is reduced to 200 contracts at the close of trading on the business day immediately preceding the last 2 trading days of the contract month. Immediately prior to the spot limit step-down from 300 to 200 contracts, the available delivery window is comprised of 10 delivery days, or 2 business days prior to LTD plus business days eight through 14 following LTD, inclusive. The Exchange calculated the average of the consecutive 10-day live grading capacity totals to be 2,910 contracts (*see* ***Exhibit A, Table 5***). The Exchange's subsequent spot month position limit of 300 contracts represents 10.31% of the estimated deliverable supply based on the 10-day delivery window.

Exhibit A

Table 1: Maximum Daily Grading Capacity (Contract Equivalents)

Stockyard	Mon	Tue	Wed	Thu	Fri	Weekly
Amarillo, TX		60	60	60	60	240
Burwell, NE	15	15	15			45
Clovis, NM	30	30		30	30	120
Dalhart, TX	15	15	15		15	60
Dodge City, KS	40	40		40	40	160
Kearney, NE	15			15	15	45
Lexington, NE	20	20	20			60
Ogallala, NE	25	25			25	75
Sterling, CO	15				15	30
Syracuse, KS	25	25	25	25		100
Texhoma, OK	30	30		30	30	120
Tulia, TX	30	30	30		30	120
West Point, NE		20	20		20	60
Worthing, SD		60		60	60	180
Wray, CO	10		10	10	10	40
Total Daily Capacity (inclusive of blackout dates)	**270**	**370**	**195**	**270**	**350**	**1,455**

Table 2: USDA Cash Reporting Regions & Associated Stockyard Delivery Points

USDA Cash Reporting Region	Associated Stockyard Delivery Points
Iowa / Minnesota	Worthing, SD
Colorado	Sterling, CO; Wray, CO
Nebraska	Burwell, NE; Ogallala, NE; West Point, NE; Kearney, NE; Lexington, NE
Kansas	Dodge City, KS; Syracuse, KS
Texas / Oklahoma / New Mexico	Amarillo, TX; Clovis, NM; Texhoma, OK; Tulia, TX; Dalhart, TX
5-Area	Representative of all delivery points

Table 3: Monthly negotiated steers and heifers by contract month (in Contract Equivalents, or 40,000 live equivalent pounds)

Contract Month	Contract Year	Dressed Heifers	Dressed Steers	Live Heifers	Live Steers	Total
Feb	2016	1,330	2,415	2,516	3,333	9,594
	2017	1,057	1,770	2,954	6,241	12,022
	2018	779	1,701	2,595	4,459	9,533
Apr	2016	1,051	3,110	2,086	4,043	10,290
	2017	735	2,594	2,504	4,800	10,634
	2018	736	2,108	2,629	4,963	10,436
Jun	2016	1,053	2,774	2,144	5,693	11,664
	2017	981	2,907	2,457	5,726	12,072
	2018	670	2,190	2,088	5,216	10,164
Aug	2016	1,225	3,530	2,618	5,911	13,284
	2017	884	2,609	2,214	6,102	11,810
	2018	898	2,926	2,537	8,000	14,362
Oct	2016	1,123	2,202	2,414	4,605	10,344
	2017	910	1,846	2,680	5,481	10,917
	2018	1,202	3,134	2,569	5,577	12,481
Dec	2016	1,316	2,824	2,620	4,204	10,964
	2017	886	1,695	2,464	5,005	10,050
	2018	813	1,641	1,870	4,203	8,528
3-Year Avg.		981	2,443	2,442	5,198	**11,064**

Table 4: Consecutive Seven-Day Grading Capacity Totals (in Contract Equivalents)

Consecutive 7-Day Combination	Daily Grading Capacity							Total Grading Capacity
M-T-W-TH-F:M-T	270	370	195	270	350	270	370	2,095
T-W-TH-F:M-T-W	370	195	270	350	270	370	195	2,020
W-TH-F:M-T-W-TH	195	270	350	270	370	195	270	1,920
Th-F:M-T-W-TH-F	270	350	270	370	195	270	350	2,075
F:M-T-W-TH-F:M	350	270	370	195	270	350	270	2,075
							Avg	**2,037**

Table 5: Consecutive 10-Day Grading Capacity Totals (in Contract Equivalents)

Consecutive 10-Day Combination	Daily Grading Capacity										Total Grading Capacity
M-T-W-TH-F:M-T-W-TH-F	270	370	195	270	350	270	370	195	270	350	2,910
T-W-TH-F:M-T-W-TH-F:M	370	195	270	350	270	370	195	270	350	270	2,910
W-TH-F:M-T-W-TH-F:M-T	195	270	350	270	370	195	270	350	270	370	2,910
Th-F:M-T-W-TH-F:M-T-W	270	350	270	370	195	270	350	270	370	195	2,910
F:M-T-W-TH-F:M-T-W-TH	350	270	370	195	270	350	270	370	195	270	2,910
										Avg	**2,910**

Table 6: Consecutive 13-Day Grading Capacity Totals (in Contract Equivalents)

Consecutive 13-Day Combination	Daily Grading Capacity													Total Grading Capacity
M-T-W-TH-F:M-T-W-TH-F:M-T-W	270	370	195	270	350	270	370	195	270	350	270	370	195	3,745
T-W-TH-F:M-T-W-TH-F:M-T-W-TH	370	195	270	350	270	370	195	270	350	270	370	195	270	3,745
W-TH-F:M-T-W-TH-F:M-T-W-TH-F	195	270	350	270	370	195	270	350	270	370	195	270	350	3,725
Th-F:M-T-W-TH-F:M-T-W-TH-F:M	270	350	270	370	195	270	350	270	370	195	270	350	270	3,800
F:M-T-W-TH-F:M-T-W-TH-F:M-T	350	270	370	195	270	350	270	370	195	270	350	270	370	3,900
													Avg	**3,783**