



Apple Juice Concentrate (AJC) Manual



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AJC Manual Table of Contents

The below table of contents is being supplied for reference purposes only. All parties including but not limited to Regular warehouses, Clearing Members, AJC product owners and market participants involved with the AJC futures contract are responsible for all information contained within the MGEX Rules and Regulations, including but not limited to all the information contained in this Manual. Failure to perform any required responsibilities may be deemed a violation of MGEX Rules and Regulations and may result in liability and/or disciplinary action. Notwithstanding anything to the contrary, MGEX is not liable for the failure by any party to comply with the Rules and Regulations, and this Manual. Further, failure to act in accordance with this Manual and any MGEX Rules or Regulations could result in you or your organization being held liable for damages to others. Please be sure to review all documentation to ensure your specific requirements are understood.

- Chapter 1: AJC Product Storage Requirements
- Chapter 2: USDA Testing, Retesting and USDA Letter Report Requirements
- Chapter 3: Requirements for Requesting and Issuing Negotiable Warehouse Receipts for MGEX Delivery
- Chapter 4: AJC Documentation Required for Initiating an MGEX Delivery
- Chapter 5: Explaining and Calculating Storage Charges and Regular Warehouse Receipt Payment Obligations
- Chapter 6: Required Endorsements
- Chapter 7: Overview of the Delivery Process for the MGEX AJC Futures Contract
- Chapter 8: Redeliveries
- Chapter 9: Important Reminders for AJC and AJC Delivery Process

Appendices:

- Appendix 1: Regular Warehouse Contact List
- Appendix 2: MGEX Clearing Members
- Appendix 3: MGEX Contacts List
- Appendix 4: Directory of USDA Field Offices
- Appendix 5: Science and Technology (USDA) Fee Schedule
- Appendix 6: Processed Products Division (USDA) Fee Schedule
- Appendix 7: National Science Laboratory (USDA) Invoice Example
- Appendix 8: Processed Products Division (USDA) Invoice Example
- Appendix 9: USDA Letter Report Example
- Appendix 10: Negotiable Warehouse Receipt Example
- Appendix 11: Certificate of Analysis (COA) Example
- Appendix 12: MGEX Delivery Intentions Notice

Chapter 1

AJC Product Storage Requirements

AJC product will be received by the Regular warehouse after notification by the initial depositor/product owner that a shipment of AJC product has been directed to be delivered to the Regular warehouse.

Storage Obligations upon Arrival and Impacts to AJC Product

Upon arrival of AJC product at the Regular warehouse, the Regular warehouse must immediately identify, verify and collect the following information:

1. The identity of the owner of the AJC product;
2. The Certificate of Analysis (COA), including the COA Lot Number for the AJC product (also may be referred to as manufacturer's lot number, production lot number, batch number or similar), and the corresponding production run listed on the COA for the AJC product;
3. Identify whether the AJC product has a hold on it by any governmental entity with appropriate jurisdiction which prohibits the AJC product from leaving the Regular warehouse;
4. The drum manifest, billing manifest, bill of lading or similar document (Manifest) which identifies the COA Lot Number and lists all the drums or bins of AJC product delivered to the Regular warehouse for storage; and
5. The AJC product is labeled per drum or bin and such label must include, but is not limited to, the amount of gallons (or liters) contained in the drum or bin.

Additionally, drums or bins arriving at the Regular warehouse should be visually inspected for damage and proper seal. Improperly sealed or damaged drums or bins requiring replacement must be treated in the following manner:

1. If upon visual inspection, it is determined the quality and/or quantity of the contents have been compromised, such product may not be used in the MGEX delivery process.
2. If AJC product quality of quantity appears to have not been altered as a result of a damaged container requiring replacement, the contents of the drum or bin may be transferred to a like container (i.e. 325 gallon bin must be replaced by another 325 gallon bin). At no time can AJC product stored in a drum be transferred to a bin. Similarly, AJC product stored in a bin may never be transferred to a drum or bin of different size.
3. The Regular warehouse must ensure that all improperly sealed or damaged drums or bins have been properly sealed.

AJC product may only be linked together for delivery on a MGEX AJC futures contract and, therefore, in the warehouse management system (WMS) only if the following factors are met, down to the drum and bin:

1. Per the COA, the AJC product is part of the same production run;

2. The AJC product has an accompanying Manifest;
3. The AJC product has a common owner;
4. The AJC product has always been stored in the same manner and temperature;
5. The AJC product drum or bin is labeled and the label must include, but is not limited to, the amount of gallons (or liters) contained in the drum or bin; and
6. Any and all information as to product characteristics located on any underlying documentation required for delivery (included but not limited to the COA, Manifest, individual drum or bin labels) supporting the AJC product arriving at the Regular warehouse must meet or exceed MGEX AJC futures contract specifications noted below. Units of measurements not defined in MGEX contract specifications may be disregarded:

BRIX: Minimum 70.0 degrees

ACID: 1.0 to 2.2% wt/wt as malic acid

COLOR: >40% transmittance @ 440nm (See below for further information on color)

TURBIDITY: \leq 3 NTU

YEAST: \leq 500 cfu/ml

THERMODURIC ACIDOPHILIC BACILLI (TAB): <1 cfu/10ml

PATULIN: Maximum 50 ppb @ single strength

TOTAL PLATE COUNT (TPC): <1,000 cfu/ml

FLAVOR: Characteristic of ripe, mature apples with no off flavors or aromas.

If any AJC product does not meet these requirements, then such AJC product must be separately identified in the WMS and may never be comingled (or re-comingled) with other AJC product for USDA testing purposes and MGEX delivery.

It is the obligation of both the AJC product owner and the Regular warehouse to identify whether the AJC product has a hold on it by any governmental entity with appropriate jurisdiction which prohibits such AJC product from leaving the Regular warehouse. No AJC product is deliverable while such hold is in affect.

At any point, should the Regular warehouse be negligent in its storing of AJC product, information management of said AJC product or labeling methods in accordance with the above procedures or other MGEX Rules and Regulations, then the Regular warehouse may be held liable for any and all damages related to the AJC product pursuant to MGEX Rules and Regulations.

The Regular warehouse must retain the COA, the Manifest and all other information that allows linking of the AJC product together for USDA testing and MGEX delivery purposes for a minimum of five (5) years.

Examples:

- A. AJC product arrives at the facility on day one (1) and is immediately placed into cold storage. On day two (2), AJC product owned by the same entity and part of the same production run also arrives at the facility and is immediately placed into cold storage. Since the AJC product was placed into cold storage at different times, the AJC product from the same production run (identified by COA) must be separately identified and cannot be comingled for USDA testing and MGEX delivery purposes. Such a scenario would require the Warehouse to separately identify the two (2) AJC product arrivals.
- B. AJC product arrives at the facility on day one (1) and is stored at ambient temperature within the warehouse. AJC product arriving on any other business day, was part of the same production run and has a common owner can then be comingled for USDA testing and MGEX delivery purposes. Such a scenario would NOT require the warehouse to separately identify such AJC product. However, should the AJC owner at any point instruct the warehouse to test only a portion of the above comingled AJC product or instruct the warehouse to store the AJC product at different temperatures or on different days, the warehouse must separately identify such AJC product. Additionally, once AJC product is separately identified, the AJC product will not be eligible to be comingled for USDA testing purposes or delivery on an MGEX AJC futures contract.
- C. AJC product arrives whereby there is no individual label on a drum or bin containing the number of gallons (liters) in that drum or bin. That drum or bin which lacks an individual label is not eligible for USDA testing or delivery on an MGEX AJC futures contract.
- D. AJC product arrives with an underlying COA noting Brix as less than 70.0°. No portion of the AJC product supported by the COA shall be eligible for USDA testing or delivery on an MGEX AJC futures contract.
- E. An individual drum or bin arrives with a label which lists the Brix as less than 70.0°. Such drum or bin shall never be eligible for USDA testing or delivery on an MGEX AJC futures contract.

Document - Certificate of Analysis (COA)

The COA is a document required to be provided by the supplier of AJC product in order for it to be delivered against an MGEX futures contract. This document must be transferred to each AJC product owner. Additionally, the COA must have been entered into the warehouse management system (WMS) of the Regular warehouse for required recordkeeping and verification purposes upon the arrival of the AJC product at the Regular warehouse.

To ensure that a proper COA has been obtained, the Regular warehouse, AJC product owner, any subsequent AJC product owner, or any Clearing Member representing an AJC product owner must verify the following information on the COA in order to ensure the AJC product is eligible for delivery on the MGEX AJC futures contract:

1. COA Lot Number (#)

For AJC product to be deliverable on the AJC futures contract, it must be linked to a COA containing a unique code which identifies the production run of the AJC product. Since the COA is not standardized across the AJC industry, the COA Lot Number may also be referred to as a manufacturer's lot number, production lot number, batch number, or similar as long as it links the COA to the production run.

2. Unit Type

The COA will also list the unit type in which the AJC product is being stored. All AJC product must have the same unit type (drums or bins) in order to be listed on one COA.

Additional information may also be listed on the COA, which may include the country of origin, producer assigned lot numbers (unique from warehouse assigned lot numbers), the packaging facility, the date AJC was put into drums or bins, the port from which product was shipped, the date product was loaded onto a ship or date shipment left port, general description of the type and condition of the product including certain contract specifications, any test results that may have been taken, and other identifying information specific or unique to the product.

See figure below for an example of the Certificate of Analysis.

CERTIFICATE OF ANALYSIS

Ref No:		356937D03-78
Date:		2/11/2011
SUPPLIER NAME:		Argentine Company ABC
PRODUCT IDENTIFICATION :		Apple Juice Concentrate
LOT NUMBER:		222000P11
LOT SIZE:		20,075 gallons
UNIT TYPE AND SIZE:		73 BINS
LOT PRODUCTION DATE		1/5/2011
SUPPLIER LABORATORY ANALYSIS		
PHYSICAL/CHEMICAL CHARACTERISTICS		
BRIX (deg.)		70.00
ACID (titratable) as % malic acid		1.86
PH @ 11.5 brix		3.73
PH (@concentrate)		3.48
COLOR (%transmittance) @440		72.30
CLARITY (%transmittance) @625		99.10
ABSORBANCE		0.17
TURBIDITY (ntu)		0.44
STARCH		Negative
PECTIN		Negative
PATULIN (ppb @ single strength)		1.02
METHAMIDOPHOS		ND
MICROBIOLOGY		
TOTAL PLATE COUNT (cfu/ml)		<500
COLIFORM (/100ml)		Negative
PATHOGEN		Negative
YEAST (cfu/gram)		<1
MOLD		<1
THERMOPHILIC ACIDOPHILIC BACTERIA (cfu/10ml)		<1
REMARKS		
PLANT NAME	_____	
PLANT ADDRESS	_____	
DESIGNATED SUPPLIER SIGNATURE	_____	
Title	_____	
Date	_____	

Identifies the unit of delivery. This unit type must be clearly identified on the Negotiable Warehouse Receipt

Identifies a unique production run. COA Lot Number must tie to the USDA Letter Report and the Negotiable Warehouse Receipt

Product characteristic per COA must meet MGEX contract specifications

Product characteristic per COA may be excluded from delivery consideration since result is not in a valid MGEX contract specification unit type

Document - Manifest

The Manifest (also known as the drum manifest, billing manifest, the bill of lading or similar), is a document the Regular warehouse is required to obtain for drum or bin identification upon receipt of the AJC product into the Regular warehouse. If the COA Lot Number is not linked to each drum or bin, the Manifest must link each drum or bin to its corresponding COA Lot Number. This tie is required to be made and recorded when receiving AJC product so that the AJC product can be involved with future USDA testing.

NOTE: Any MGEX AJC futures contract specification provided on any documentation used to support the delivery of AJC product, including but not limited to the COA, Manifest, or drum or bin label and negotiable warehouse

receipt, must meet MGEX product specification requirements to be eligible for USDA testing and delivery against an MGEX AJC futures contract. Units of measurements not defined in MGEX contract specifications may be excluded from the determination above. USDA sampling and testing is still required to verify that all contract specifications have been met. To be eligible for delivery, AJC product must be supported by a passing, valid USDA Letter Report

Chapter 2

USDA Testing, Retesting and USDA Letter Report Requirements

All AJC product used to deliver on the MGEX AJC futures contract must meet the requirements outlined in Chapter 1 and also meet the product specifications as evidenced by a passing and valid United States Department of Agriculture (USDA) Letter Report. To determine whether the AJC product meets delivery specifications and, therefore, can be issued a passing USDA Letter Report, the product owner must have the AJC product sampled and tested by the USDA. Only AJC product identified per the procedures described in Chapter 1 is eligible to receive a passing, valid USDA Letter Report for purposes of delivery on the MGEX AJC futures contract.

If a passing, valid USDA Letter Report does not exist (most times it will not) it will be the responsibility of the AJC product owner wishing to deliver AJC negotiable warehouse receipt(s) in satisfaction of open AJC futures positions to request (to the Regular warehouse) and pay for the required USDA sampling and testing. Note, the USDA Letter Report may take a maximum of nineteen (19) business days following the date that the AJC product owner contacts the Regular warehouse to schedule sampling of the AJC product. Parties wishing to deliver AJC negotiable warehouse receipt(s) in the MGEX delivery process must obtain this report prior to submitting a Delivery Intentions Notice to the Exchange. Due to the time needed for sampling and the above requirement concerning delivery, AJC product owners should plan ahead in order to ensure proper sampling and timely results.

Once an owner of AJC product requests a USDA test, the Regular warehouse must identify the specific AJC product to be tested (Test Lot) within one (1) business day of being contacted by the AJC product owner. One Test Lot may only represent up to 40,000 gallons of AJC which has been identified via the procedures mentioned in Chapter 1 and stored in compliance with MGEX Rules and Regulations. In addition to these procedures, the following must be created and/or identified in the WMS prior to requesting a USDA test:

1. A unique identifier specific to each drum or bin which shall include the number of gallons (liters) for each drum or bin contained in the test lot;
2. Assign a unique Test Lot identifier which covers all drums and bins identified above and contained within a Test Lot;
3. Each drum or bin must be linked to appropriate the Manifest;
4. Each drum or bin must be linked to the appropriate COA;
5. Any holds on AJC product by any governmental entity with appropriate jurisdiction which prohibits such AJC product to leave the Regular warehouse. No AJC product is deliverable while such hold is in affect (if a hold is on the AJC product no USDA sampling and testing can occur);
6. Any product specifications identified on any supporting document required for delivery must meet or exceed minimum AJC futures contract specifications.

Units of measurements not defined in MGEX contract specifications may be excluded from the determination above.

Once identified per the above methods, the Regular warehouse will have one (1) business day to contact the nearest USDA Processed Products Division (PPD) field office to schedule AJC product sampling (See Appendix 4 for list of USDA field offices). Upon contacting the USDA, the Regular warehouse will provide a list of all containers representing the Test Lot within the WMS (up to 40,000 gallons) as well as a copy of the Manifest and the COA to the USDA via acceptable method (fax/email). The information supplied by the Regular warehouse used to support the Test Lot must also include a listing of the individual drums or bins with each container's volume by gallon. The Regular warehouse must be able to prove the connection between the COA, the Manifest and the Test Lot to the USDA. It is both the AJC product owner's and the Regular warehouse's responsibility and obligation to correctly identify the Test Lot and the drums or bins contained therein. Failure to do so may result in the AJC product not being eligible for delivery.

Should there be an issue with obtaining the appropriate linkage between AJC product documents, the Regular warehouse must immediately notify the AJC product owner. All issues must be resolved by the Regular warehouse and or AJC product owner before continuing with the testing process.

NOTE: The process of obtaining a passing USDA Letter Report may take a maximum of nineteen (19) business days following the initial contact to schedule a test by the product owner.

Any AJC product required to be separately identified in the WMS must also be sampled and tested separately by the USDA. Such differentiation must be uniquely identified per drum or bin within the WMS. Consequently, any AJC product required to be separately identified for testing purposes may not be part of the same negotiable warehouse receipt issued for delivery on the MGEX AJC futures contract.

Prior to the USDA arriving at the facility, the USDA will identify the drum or bin which will be sampled and inform the Regular warehouse. Upon receiving the notification, the Regular warehouse must remove the drum or bin from storage and stage it for sampling in a sanitary environment and provide sanitary testing equipment and sampling containers. If the warehouse does not supply appropriate containers, both cups and lids, the PPD office may charge the warehouse for containers supplied by the USDA. In the event the AJC product is frozen, the Regular warehouse must take the necessary measures to ensure the AJC product is sufficiently thawed prior to USDA sampling. Except as provided elsewhere in this Manual, all drums or bins must remain sealed until the USDA inspector is present to observe the unsealing of the container. If requested by the USDA, the Regular warehouse must assist in opening the drum or bin as well as assist in any other reasonable request by the USDA as it relates to the sampling process.

Once sampled by the USDA, it is the Regular warehouse's responsibility to reseal each drum or bin consistent with industry standards and may be held liable for damages for any failure to properly seal the drums or bins. Likewise, the entire Test Lot must be immediately stored at or below 0 degrees Fahrenheit until load out or retesting.

All USDA Letter Reports are sent to the Regular warehouse that requested the sampling and testing services. The USDA Letter Reports must be noted appropriately within the Regular warehouse's WMS and linked to each drum or bin within that Test Lot. The original or a copy must be forwarded to the product owner and a copy (or original) must be kept on file by the Regular warehouse for a minimum of five (5) years.

USDA Retesting Other than for Test Failure

1. USDA Retesting Prior to Issuance of Negotiable Warehouse Receipts

Should a retest be required for any reason aside from original test failure (see below), the owner of the negotiable warehouse receipt(s) must contact the Regular warehouse to request a retest. The Regular warehouse will have one (1) business day to contact the USDA to order the retest. Upon contacting the USDA, the Regular warehouse will submit a copy of the Manifest along with a copy of the current WMS information identifying the specific drums or bins represented by the current Test Lot. The Regular warehouse will also need to provide a new Test Lot number identifying the specific drums or bins identified for retesting. Consequently, a new Test Lot number must be assigned for every test/retest and identified separately within the WMS.

The USDA will issue a new USDA Letter Report for the specific drums or bins identified under the new Test Lot number. Upon ensuring all items receive passing grades, the Regular warehouse must link the new Test Lot number in the WMS.

All documentation is required to be maintained for a minimum period of ten (10) years.

2. USDA Retesting After Issuance of Negotiable Warehouse Receipts

Should a retest be required for any reason aside from original test failure (see below), the owner of the negotiable warehouse receipt(s) must contact the Regular warehouse to request a retest. The Regular warehouse will have one (1) business day to contact the USDA to order the retest. Upon contacting the USDA, the Regular warehouse will submit a copy of the Manifest along with a copy of the current WMS information identifying the specific drums or bins represented by the negotiable warehouse receipt. The Regular warehouse will also need to provide a new Test Lot number identifying the specific drums or bins represented on the negotiable warehouse receipt identified for retesting. Consequently, a new Test Lot number must be assigned for every test/retest and identified separately within the WMS.

The USDA will issue a new USDA Letter Report for the specific drums or bins identified under the new Test Lot number. Upon ensuring all items receive passing grades, the Regular warehouse must issue a new negotiable warehouse receipt containing the previous negotiable warehouse receipt lot number (see Chapter 3 for further information regarding the negotiable warehouse receipt lot number) and the new Test Lot number. Further, the Regular warehouse must collect the "old" warehouse receipt from the product owner and label such as being canceled prior to issuing the new negotiable warehouse receipt.

All documentation is required to be maintained for a minimum period of ten (10) years, including the canceled warehouse receipt which was part of the retest.

USDA Retesting Due to Test Failure

If a sample fails a test as documented by the USDA Letter Report, the sampled drum or bin may not be used to deliver on an AJC futures contract and the Regular warehouse must clearly identify the tested drum or bin as undeliverable. The remaining portion of the Test Lot may be retested; however, the new sample cannot represent more than 10,000 gallons of AJC product. Should a subsequent 10,000 gallon Test Lot fail, the tested drum or bin cannot be used to deliver on an AJC futures contract and the Regular warehouse must clearly identify the tested drum or bin as undeliverable. Any further retests must be conducted in 1,800 gallon denominations within acceptable variance. If the tested drum or bin in a 1,800 gallon denomination within acceptable variance fails, none of the drums or bins within that 1,800 gallon lot may be used to deliver on an AJC futures contract. This information must also be identified within the WMS.

USDA Sample Fees:

As part of the process for becoming Regular on the AJC contract, a Regular warehouse is required to establish two (2) accounts for billing purposes with the USDA:

1. PPD Billing Account: Regular warehouse contacts a field inspection office for the USDA Processed Products Division (PPD) to establish an account. The PPD office is the billing office for testing the following: Acid level, Brix, Turbidity, Color, and Flavor. A directory of USDA PPD inspection offices is located within the attached Appendix 4 of this manual. The PPD office sends a request form to the warehouse for information required to establish a business account.
2. NSL Billing Account: Regular warehouse contacts National Science Laboratory (NSL) in Gastonia, North Carolina to set up a billing account. NSL is the billing office for Science & Technology (S&T) Programs, the USDA division that performs the microbiological testing for the following: Total Plate Count (TPC), Patulin, Thermophilic Acidophilic Bacilli (TAB) and Yeast.

The following information will be required to establish the business accounts:

- a. Name of Regular warehouse
- b. Mailing Address
- c. Telephone
- d. Taxpayer Federal ID Number

Samples of invoices from both NSL and PPD can be found in Appendix 7 and 8.

Payment for USDA testing is made by the Regular warehouse on behalf of the product owner. The USDA will invoice the Regular warehouse for sampling and testing services within 10 days of when the sampling took place. Since there are two USDA departments responsible for conducting various portions of the test and sampling, more than one invoice may be received as part of the same test. Payment must be remitted to the USDA per their terms.

Regular warehouses may separately invoice the current AJC product owner, as of the sampling date, for reimbursement of the USDA testing expenses as well as fees associated with providing additional services as a result.

Current costs assessed by the USDA for product testing can be found in the Appendix 5 and 6 of this manual.

Document - USDA Letter Report

In addition to the requirements specified in Chapter 1, only AJC product represented by a passing and valid Letter Report (no failure(s) and not expired) may be delivered on an MGEX AJC futures contract.

1. Passing USDA Letter Report

In order for AJC product to receive a passing USDA Letter Report, AJC product must meet the following specifications (See MGEX [Regulation 5402.00.](#)):

1. Brix (degrees): Min 70.0°
2. Acid (Malic, %): 1.0 – 2.2 wt/wt as malic acid
3. Turbidity: ≤ 3NTU
4. Thermophilic Acidophilic Bacilli (TAB) < 1cfu/10ml
5. Total Plate Count (TPC) < 1,000 cfu/ml
6. Patulin: Maximum 50 ppb @ single strength
7. Yeast: ≤ 500 cfu/ml
8. Flavor: Characteristic of ripe, mature apples with no off flavors or aromas
9. Color: >40% transmittance @ 440nm

AJC product that meets the contract specifications (color determination described above) will be identified with “meets” in the Meets/Fails column of the USDA Letter Report. AJC product entering the delivery process must meet all product specifications.

2. Valid USDA Letter Report

AJC product quality characteristics degrade over time. As a result, AJC product once valid for delivery may become undeliverable if a subsequent passing USDA Letter Report cannot be obtained. AJC market participants and Clearing Members must be aware of this when participating in the delivery process.

If either of the following occurs, a USDA Letter Report becomes invalid:

a. Expiration of a USDA Letter Report

Provided the product is stored correctly as described earlier, a passing USDA Letter Report is valid for one (1) year. However, to be eligible for delivery, the passing USDA Letter Report could not have been issued more than eleven months prior to the applicable delivery month (See MGEX [Regulation 5404.00.A.](#)). Once a USDA Letter Report has expired, or prior to expiration, the owner of the corresponding AJC product and negotiable warehouse receipt, if applicable, may request that an additional sample be taken and a new USDA Letter Report issued. (See MGEX [Regulation 5404.00.C.](#)).

b. Color of AJC Product Degradation

If the lab test result for color is below 52 points, the USDA Letter Report will be valid for less than one (1) year. AJC product must have color grade of at least 41 points throughout the delivery month or 42 points throughout the applicable month prior to the delivery month. Provided that the AJC product is stored correctly, the color grade will be deemed to degrade one point at the first of every month after the sample has been taken (See MGEX [Regulation 5404.00.C.](#)) Product with color of 40 points is not deliverable on the AJC futures contract.

3. Required USDA Letter Report Cross References

The COA and the USDA Letter Report must link to the drums or bins involved within the Regular warehouse's WMS. Further, to ensure that the proper USDA Letter Report has been obtained, the Regular warehouse, AJC product owner, or any subsequent AJC product owner, or any Clearing Member representing a product owner at anytime must verify the following information within the USDA Letter Report as part of making the AJC product eventually available for delivery on the MGEX AJC futures contract:

a. Certificate of Analysis (COA) Lot Number (#)

The COA Lot Number identified on the USDA Letter Report must correspond to the COA Lot Number indicated on the COA. Additionally, the COA Lot Number will need to be recorded on the negotiable warehouse receipt, if applicable.

b. Test Lot Number:

Test Lot Number indicated on the USDA Letter Report must correspond to the Test Lot Number and listed on the negotiable warehouse receipt, if applicable. Each unique Test Lot Number issued by a Regular warehouse identifies the specific drums or bins that are representative of one USDA test.

c. Applicant Name/Address

Each USDA Letter Report is issued to a specific Regular warehouse on behalf of the AJC product owner requesting AJC testing. The Regular warehouse address listed on the USDA Letter Report must also correspond to the Regular warehouse name and address listed on the negotiable warehouse receipt, if applicable.

4. Other USDA Letter Report Requirements

No USDA Letter Report can be destroyed. The test results and USDA Letter Report are not appealable. All USDA Letter Reports must be retained by the warehouse for a minimum of ten (10) years.

An example of a USDA Letter Report is provided below.



98 Third Street, S.W.
Winter Haven, FL 33880

WHL – 0001
6/25/11

Warehouse Operator
2587 N Specific Ave
Los Angeles, CA 23000

Ties to warehouse address of the issuer of the negotiable warehouse receipt

Ties to the COA lot number listed on the negotiable warehouse receipt and corresponding COA

Dear: Warehouse Operator,

This report details the results of the analysis on one sampling of Apple Juice Concentrate (AJC) that our department drew on 6/1/2011. The samples were drawn from drum number 8 from Test Lot number AJC 123 as established by the warehouse. The Certificate of Analysis (COA) presented to our department at the time of sampling represents lot number 222000P11 establishing the applicant's connection to the COA and the production run established by the applicant's lot.

In conducting the analysis, our department verified that all AJC product characteristics listed on any document obtained in the sampling process meets or exceeds Minneapolis Grain Exchange, Inc. (MGEX) AJC futures contract specifications. The test results are provided below and are used to provide verification that AJC product represented by Test Lot number AJC 123 meets or fails MGEX AJC futures contract specifications.

DATE SAMPLED: 6/1/2011 APPLICANT: Warehouse Operator Test LOT #: AJC 123 DRUM/BIN: 8	MGEX AJC Futures Contract Specifications	Applicant's COA Results	USDA Analysis	Meets/Fails
Brix (degrees)	Min 70.0	70	71.0	Meets
Acid (Malic, weight/weight, %)	1.0 - 2.2	1.86	1.92	Meets
Color (transmittance@ 440 nm)	> 40%	72.3%	68%	Meets
Turbidity	≤ 3 NTU	.44 NTU	≤ 3 NTU	Meets
Thermophilic Acidophilic Bacilli (TAB)	< 1 cfu/10 ml	< 1 cfu/10 ml	< 1 cfu/10 ml	Meets
Total Plate Count (TPC)	< 1,000 cfu/ml	< 500 cfu/ml	< 1,000 cfu/ml	Meets
Patulin @ single strength	≤ 50 ppb	1.02 ppb	≤ 50 ppb	Meets
Yeast	≤ 500 cfu/ml		≤ 500 cfu/ml	Meets
Flavor	Characteristic of mature apples with no off flavors or aromas.	mature	Typical	Meets

Based on the test results listed above, the sample [Meets] the MGEX AJC Futures specifications.

Sincerely,

Ties to the Test Lot number listed on the corresponding negotiable warehouse receipt.

USDA-AMS-FV-PPD
98 Third Street, S.W.
Winter Haven, FL 33880
cc: _____

Chapter 3

Requirements for Requesting and Issuing Negotiable Warehouse Receipts for MGEX Delivery

The AJC negotiable warehouse receipt is a negotiable instrument required to make delivery against the MGEX AJC futures contract and must be in a form approved by MGEX. It details the location of the approved Regular warehouse and the details of the AJC being delivered. Such negotiable warehouse receipt can only be created if the AJC product resides in an MGEX approved Regular warehouse. It is the responsibility of the Regular warehouse to issue the negotiable warehouse receipt. Each negotiable warehouse receipt represents one 1,800 gallon contract (limited variances permitted) as denoted on the negotiable warehouse receipt. Once a negotiable warehouse receipt is issued, under no circumstance can the AJC product represented by the negotiable warehouse receipt be comingled with any other AJC product for future USDA testing purposes or for issuing or re-issuing a negotiable warehouse receipt for MGEX delivery purposes.

Additionally, a warehouse may not issue a negotiable warehouse receipt for delivery on the MGEX futures contract unless all AJC futures contract specifications for the AJC product represented on the COA, USDA Letter Report, individual drum or bin labels or any other document required for delivery meets all AJC futures contract specifications.

To execute a valid delivery, each AJC negotiable warehouse receipt must be properly issued, endorsed and represent the product listed on the negotiable warehouse receipt. Regular warehouses should only issue a negotiable warehouse receipt acceptable for delivery against the MGEX AJC futures contract under the requirements in the MGEX Rules and Regulations and under the following conditions:

1. The Regular warehouse has been instructed by the product owner to issue MGEX approved negotiable warehouse receipt(s). All negotiable warehouse receipts must be in denominations of 1,800 gallons (plus or minus allowable variances). If product has been labeled in liters, the Regular warehouse must convert liters to gallons via the standard conversion method;
2. The Regular warehouse must have followed the procedures detailed in Chapters 1 and 2 above and other applicable MGEX Rules and Regulations for identifying, verifying, storing and preserving the AJC product identity;
3. The Regular warehouse must have individually identified the drums or bins which are identified as part of the Test Lot (as described above), and obtained a passing and valid USDA Letter Report from the USDA;
4. There is no hold on the AJC product by any governmental entity with appropriate jurisdiction which prohibits such AJC product to leave the Regular warehouse's facility;
5. All drums or bins associated with a specific negotiable warehouse receipt must be a part of the same Test Lot and the Test Lot number must be identified on the front of the negotiable warehouse receipt; and

6. The Regular warehouse must assign a new, unique identifying number for the specific drums or bins represented by the negotiable warehouse receipt (warehouse receipt lot number) which must be traceable within the WMS and listed on the negotiable warehouse receipt.
7. Prior to or at the time of load out or reissuing negotiable warehouse receipt(s), the Regular warehouse must cancel the current warehouse receipt(s) covering the AJC product. (See sections on USDA retesting above).

The negotiable warehouse receipt, a copy of the COA, and a copy of the USDA Letter Report must be sent by overnight courier to the AJC product owner listed on the negotiable warehouse receipt within one (1) business day from the request by the AJC product owner for a negotiable warehouse receipt to be used for delivery on an AJC futures contract. In addition, all such information should be linked within the warehouse's WMS.

Once a negotiable warehouse receipt is issued by the warehouse, any subsequent USDA tests must be conducted exclusively for the drums or bins represented by said negotiable warehouse receipt. Again, AJC product may not be re-aggregated or co-mingled for any purpose.

Copies of all the above information and any cancelled negotiable warehouse receipts must be retained by the Regular warehouse for a minimum period of five (5) years.

At any point, should the Regular warehouse be found to be negligent in its storing, resealing, or labeling the AJC product or creation of the negotiable warehouse receipt or other Regular warehouse processes in accordance with the MGEX Rules and Regulations or procedures, the Regular warehouse may be held liable for any and all damages related to the AJC product.

Document - Negotiable Warehouse Receipt

The COA and the USDA Letter Report and the negotiable warehouse receipt must be linked to the drums or bins involved within the warehouse's WMS that have been deemed eligible for delivery against an MGEX AJC futures contract. In issuing or accepting a negotiable warehouse receipt, the Regular warehouse, AJC product owner, any subsequent AJC product owner, or any Clearing Member representing a product owner must verify the following information on the negotiable warehouse receipt as part of making the AJC product available for delivery on the MGEX AJC futures contract (note, exact terminology might vary per Regular warehouse):

1. Quantity:

Any negotiable warehouse receipt used to deliver on the AJC futures contract must contain and identify 1,800 gallons, within allowed variance, and consist of 32 fifty-five gallon drums or 6 (six) 275 to 325 gallon bins all with like capacity. The quantity noted in the "amount" field must match the actual AJC product volume as noted on the drum or bin label and in the WMS for the AJC product associated with the negotiable warehouse receipt.

Variance: A variance of no more than 200 gallons in actual quantity is permitted and the actual amount must be indicated on the face of a negotiable warehouse receipt eligible to be delivered against an MGEX AJC futures contract. Each drum or bin must be substantially filled. For example, 6 (six) bins of 275 gallons each representing a maximum of 1,650 gallons or 6 (six) bins of 325 gallons each representing a maximum of 1,950 gallons may be delivered. All bins associated with a single negotiable warehouse receipt must have equal capacity.

- The amount paid for any underage or overage shall be price adjusted accordingly. (See [MGEX Regulation 5404.00.M.](#))

2. Endorsement

Endorsement is necessary to document the chain of title (see Chapter 6 of this Manual and MGEX Rules and Regulations).

3. Storage Charges

The AJC product owner or the negotiable warehouse receipt holder's Clearing Member must ensure that the date through which storage charges have been paid (which is also the date to be used to prorate storage charges between the buyer and seller in the delivery process) is noted on the negotiable warehouse receipt. All charges due to the Regular warehouse must be paid prior to submitting the Delivery Intentions Notice.

4. Test Lot Number

The negotiable warehouse receipt must clearly identify the Test Lot Number that was tested in conjunction with the specific 1,800 gallons identified on the negotiable warehouse receipt. This Test Lot number will also be identified on the USDA Letter Report received after testing has been completed.

5. Certificate of Analysis (COA) Lot Number (#)

The warehouse receipt must clearly identify the COA Lot Number from the COA corresponding to the AJC lot for which the negotiable warehouse receipt was issued. The COA Lot number must match the Lot Number identified on the COA.

6. Storage Temperature

Each negotiable warehouse receipt must identify the storage temperature at which the AJC product was stored in immediately after the USDA sample was taken. All AJC product must be stored at or below 0° Fahrenheit from the time that the USDA sample had been taken until the load out or retesting of the product. Should the product be removed from this temperature environment, any passing, valid USDA Letter Report that has been issued for the product becomes invalid for delivery on an MGEX AJC futures contract.

7. Additional Negotiable Warehouse Receipt Terms and Fields

Receipt Number:

It is important that each receipt have a unique sequential number; no two negotiable warehouse receipts issued by the same Regular warehouse may have the same number.

Received From:

The name and address of the product owner.

Received By:

The name and address of the Regular warehouse issuing the negotiable warehouse receipt.

Date Issued:

The date the Regular warehouse issued the negotiable warehouse receipt.

Warehouse Receipt Lot Number:

The identification number for specific drums or bins of AJC product represented by the negotiable warehouse receipt.

Country of Origin:

The name of the country from which the AJC product originated.

Gross Weight:

Gross weight is the weight of AJC product together with the weight of its container and the material used in packing, including but not limited to the pallet. Each negotiable warehouse receipt must set out in its terms the tare and the gross weight of AJC product represented by the negotiable warehouse receipt.

Tare Weight:

Tare weight on the negotiable warehouse receipt must be the tare weight furnished to the Regular warehouse by the shipping party which is assumed to be the weight of a container and the material used for packing, including but not limited to the pallet.

Type and Number of Units (Drums or Bins):

Identifies the unit type in either drums or bins, the capacity and number of drums or bins of AJC product represented by the negotiable warehouse receipt.

Split Month:

Indicates that storage charges will be calculated using a calendar month. A full month's storage charge will be applied to AJC product received between the 1st and the 15th inclusive, of a calendar month. One half of a month's storage charge will apply to AJC product received between the 16th and the last day inclusive, of the calendar month. A full month's storage charge shall apply on the 1st day of the next calendar month and each month thereafter on AJC product remaining in storage. After the initial paid storage period, storage is always invoiced and paid for a full month on the 1st of each month for a consecutive one month period.