UNITED STATES DEPARTMENT OF AGRICULTURE

Grain Inspection,
Packers & Stockyards Administration

GIPSA Agricultural Product Standards Business Procedures

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Version	Date	Author	Comment
1.0	03/18/2005	Karen Guagliardo	Original Draft
1.1	05/05/2005	Karen Guagliardo	Final

Document Sign-off

Table b – Document Sign-off

Date	Name	Title

OVERVIEW

This document describes the business procedures for the Agricultural Product Standards system (APS). APS is used to view, create, and maintain specific agricultural product information used by the Grain Inspection, Packers and Stockyards Administration (GIPSA) in fulfilling its regulatory and oversight responsibilities.

The APS system allows authorized GIPSA users to view, create, update and make available information about specific products in a hierarchical form, with agricultural Product (e.g. Grain, Rice, Pulses, etc.) at the highest level, Commodity (e.g., barley, milled rice, beans, etc.) at the next lower level, Class (e.g., malting barley, short grain milled rice, great northern beans, etc.) at a third level, and Subclass (e.g., two-rowed malting barley) at a lowest level. These are collectively called Agricultural Commodity Classes (ACC).

The Analytical factor (Factor) (e.g. Test Weight) is a characteristic of the ACC that is tested or measured.

ACCs and Factors come together to form the Commodity Analytical Factor (CAF).

The Grade is a level of quality as specified in the standards based upon the CAF. The factor grade limit (Limit) holds the value for a specific CAF and Grade (e.g., the CAF "oats test weight" and the grade "U.S. No. 1", have a minimum value of 36.0 lb/bus.)

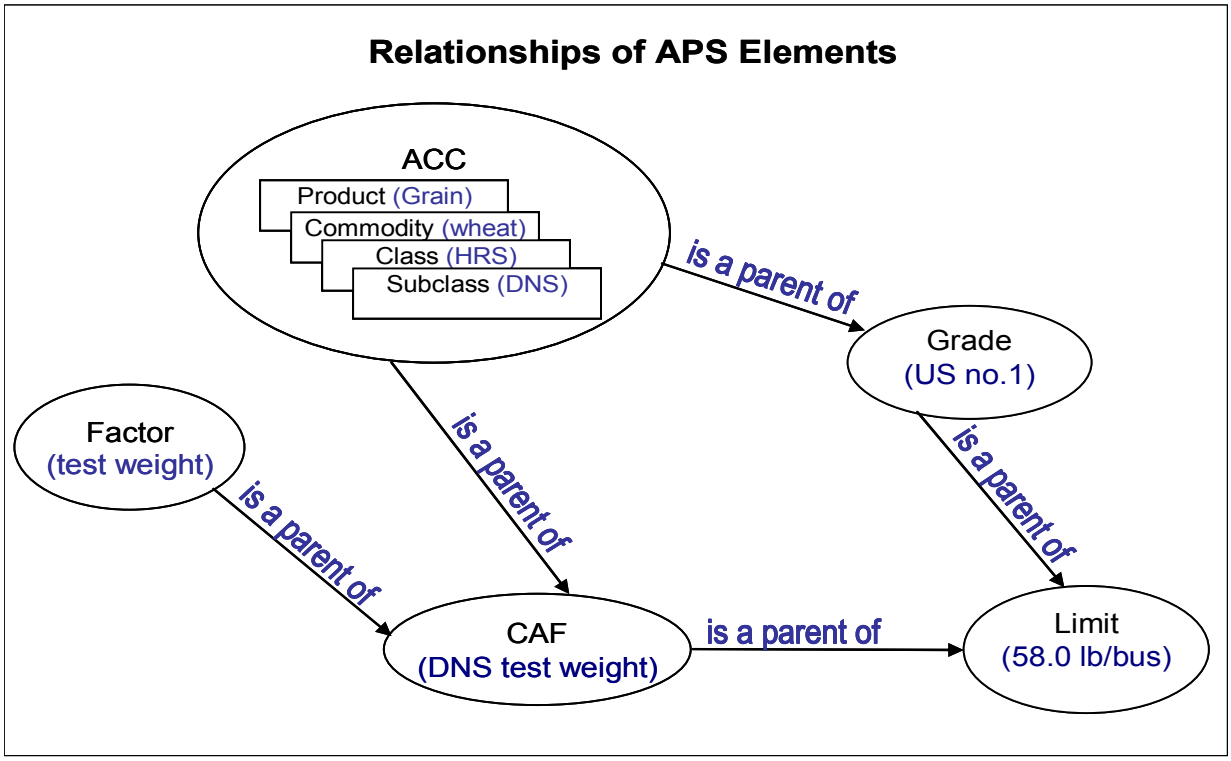

Figure 1

GENERAL

The ACCs, Factors, CAFs, Grades, and Limits are *elements* of the system that have tables in the database associated with them. Every element has a status associated with it which tracks the lifecycle of the element. There are three choices of Status: Planned, Active, and Inactive. Before entering an element into the system the status is considered null because it does not exist yet. The following chart shows the transition that the status can go through.

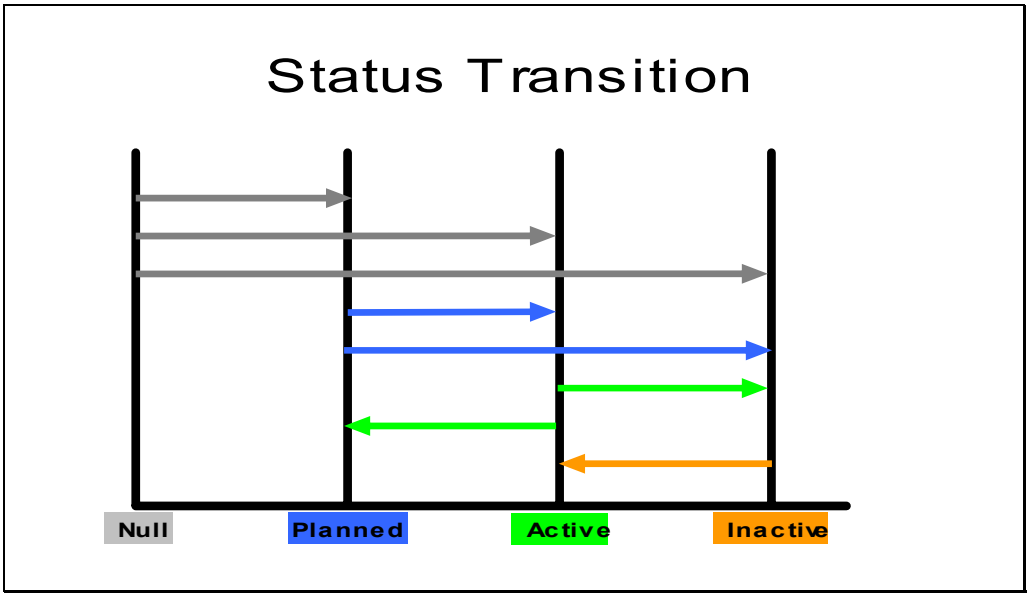

Figure 2

In addition to its own status, each element is somewhat dependent on the status of other elements in the system. In order for an instance of an element to be Active, its Parent must first be Active, and before a Parent can to changed to be anything other than Active (i.e., Planned, or Inactive), any dependents must first be changed to something other than Active. The reason these restrictions exist is to keep an element that has dependences from being Active when the Parent is not Active. It would result in an Active Orphan (a child that does not have an active parent) that could cause problems in other *consuming* systems (systems that use the data from APS, e.g., Certificates, Inspection Data Warehouse).

Status Definitions

Planned: In this status, the element may be used in the future but is not in use yet, and the consuming systems cannot see it. It cannot have Active dependents.

Active: In this status, the element can have Active dependents, and be used by other consuming systems.

Inactive: In this status, the element is not in use at this time. In most cases, it was Active, and has since been inactivated, and the consuming systems cannot see it. It cannot have Active dependents.

The following Chart shows the status restrictions of the elements.

If ↓, then →	ACC	Factor	CAF	Grade	Limit
ACC (P, I)		Any status	P, I	P, I	P, I
ACC (A)		Any status	Any status	Any status	Any status
Factor (P, I)	Any status		P, I	Any status	P, I
Factor (A)	Any status		Any status	Any status	Any status
CAF (P, I)	Any status	Any status		Any status	P, I
CAF (A)	A	A		Any status	Any status
Grade (P, I)	Any status	Any status	Any status		P, I
Grade (A)	A	Any status	Any status		Any status
Limit (P, I)	Any status	Any status	Any status	Any status	
Limit (A)	A	A	A	A	
P = Planned A = Active I = Inactive					

Figure 3

The following discusses each element, and the business procedures for creating and updating them in the system. For help with how to navigate through the system, please refer to the User's Manual.

RESPONSIBILITIES

Most users will only have the ability to view the records and not make changes. The administrative users who are granted the rights to create, update, and delete APS records, are responsible for maintaining the APS data.

The Federal Grain Inspection Service, Field Management Division is responsible for maintaining the FGIS records. The Packers and Stockyards Programs are responsible for maintaining the P&SP records.

AGRICULTURAL COMMODITY CLASS (ACC)

The ACC is arranged in a hierarchy, with the Product being the highest level, then commodity, class, and subclass, in that order. They have the following relationships:

Each Product may have one or more Commodity. And, each Commodity is listed under only one Product.

Each Commodity may have one or more Class. And, each Class is listed under only one Commodity.

Each Class may have one or more Subclass. And, each Subclass is listed under only one Class.

Each Subclass is at the lowest level and cannot have any ACC listed under it.

ACC Status

The Product is the Parent to the Commodity.

The Commodity is the Parent to the Class.

The Class is the Parent to the Subclass.

For the ACC Status, the Parent must be "Active" before the Child can be "Active". Once the Child is "Active", the Parent cannot change to "Planned" or "Inactive" until the Child is changed. In addition, the lowest level ACC is also a parent to the CAF and the Grade, so the ACC must be "Active" before the CAF or Grade can be "Active".

Adding an ACC

When adding an ACC there are several required fields. All required fields are underlined in red in the application (and below):

Program: Choice is FGIS or P&SP

Abbrev Name: This must be unique within the program, and is limited to 10 characters.

Name: This is the full name of the ACC, it must be unique, and is limited to 75 characters.

Type: This is Product, Commodity, Class, or Subclass. It is not a fillable field, and should show where you are in the hierarchy.

Status: The choices are Planned, Active, or Inactive. The default value for this field is "Planned". See ACC Status above for more details.

Lowest Level: This is a Yes/No field, and it refers to the hierarchy of the ACC. If there is a lower level to be added under the ACC, the value should be "No" (e.g., Corn is under Grain). If the ACC is at the lowest level (e.g., Yellow corn), then the value should be set to "Yes". The default value for this field is "No".

Definition: This field is optional. It is the definition for the ACC.

Changing an ACC

When updating the ACC, the same rules apply as for adding an ACC (i.e., the required fields must remain populated), and the status must follow the rules outlined above.

Deleting an ACC

The delete feature of this application is only to remove a mistake that was made. If an ACC is no longer an "Active" ACC, then you should Inactivate it, not delete it. An ACC cannot be deleted if it has any associated dependents (i.e., CAF, Grade, lower level ACC)

ANALYTICAL FACTOR (Factor)

Factor Status

The Factor is a parent to the CAF, so the Factor must be Active before the CAF can be Active.

Adding a Factor

When adding a Factor there are several required fields. All required fields are underlined in red in the application (and below):

Abbrev Name: This must be unique within the program, and is limited to 10 characters.

Name: This is the full name of the Factor, it must be unique, and is limited to 75 characters.

Status: The choices are Planned, Active, or Inactive. See Factor Status above for more details. The default value for this field is "No".

Definition: This field is optional. It is the definition for the Factor.

Changing a Factor

When updating a Factor, the same rules apply as for adding a Factor (i.e., the required fields must remain populated), and the status must follow the rules outlined above.

Deleting a Factor

The delete feature of this application is only to remove a mistake that was made. If a Factor is no longer an "Active" Factor, then you should Inactivate it, not delete it. A Factor cannot be deleted if it has any associated dependents (i.e., CAF)

COMMODITY ANALYTICAL FACTOR (CAF)

CAF Status

Since the CAF is dependent on the ACC and the Factor, the Status is also dependent on the others. The CAF cannot be "Active" unless both the ACC and the Factor are "Active". Also, once a CAF is created and made "Active", the ACC and Factor that make up that CAF cannot be changed to "Planned" or "Inactive" as long as the CAF is "Active".

The CAF also has an "Active Date" and an "Inactive Date" that are tied to the Status. The "Active Date" can be manually entered or changed, but the "Inactive Date" is a read-only field that is populated by the action of changing the Status to "Inactive".

If the Status is:

Planned: the "Active Date" is the date that the CAF will become "Active" (this means the

date should be in the future). The "Inactive Date" should be blank. When the "Active Date" is reached, the Status will automatically change from "Planned" to "Active". Do not enter the CAF until the Active date is known.

Active: the "Active Date" is the date that the CAF became "Active" (this means the date should be in the past). The "Inactive Date" should be blank.

Inactive: the "Active Date" is the date that the CAF became "Active" (this means the date should be in the past). The "Inactive Date" will have the date that the CAF became "Inactive" (this date will be in the past). When the "Active date" is reached for the new "Planned" CAF, the planned CAF becomes "Active", and the previously Active CAF will graduate to "Inactive". If the CAF will no longer be used, and there is not a replacement for it, then the Status has to be manually changed from "Active" to "Inactive".

Adding a CAF

When adding a CAF there are several required fields. All required fields are underlined in red in the application (and below):

ACC: this is a dropdown box. Pick the appropriate abbreviated name for the ACC that you want to connect to a factor.

Status: the choices are Planned, Active, or Inactive. See CAF Status above for more details. The default value for this field is "Planned".

Factor: this is a dropdown box. Pick the appropriate abbreviated name for the Factor that you want to connect to the ACC you chose.

Active Date: This is the date that the CAF will or has become "Active". See CAF Status above for more details.

Group Factor: This is a Yes/No field, and it refers to whether or not it is a factor that is a combination of other factors (e.g., defects in wheat is a "Group Factor", because it is made up of a combination of three other factors, and it is not analyzed on its own.) The factors that make up the "Group Factor" are not marked as a "Group Factor", only the one that is the combination factor. The default value for this field is "No".

Used for Grade: This is a read-only field, and it refers to whether or not the CAF is a grade determining factor. The default value for this field is "No" when adding a new CAF. Once a limit is attached to the CAF, and value automatically changes to "Yes".

Unit of Measure Default: This is a dropdown box. Pick the appropriate value for the CAF. If the CAF has different units of measure for different grade levels, pick the one that is most common. In the Limits screen, you will be able to override the value for a particular grade. The default value for this field is "%".

Precision Default: This is a dropdown box. Pick the appropriate value for the CAF. If the CAF has different precision values for different grade levels, pick the one that is most common. In the Limits screen, you will be able to override the value for a particular grade. The default value for this field is "tenths".

Definition: This field is optional. It is the definition for the CAF.

Special Grade Instruction: This field is filled in if the CAF is used to determine a special

grade (e.g., garlicky, waxy, etc.) Describe the requirements for the special grade.

Changing a CAF

When updating a CAF, the same rules apply as for adding a CAF (i.e., the required fields must remain populated), and the status must follow the rules outlined above.

Adding Members to a Group CAF

In the list of CAF records, the records that have a "Members" link in the Action Column are Group CAFs. To add members to the group, click on the "members" link. The Members field is a dropdown box. It is limited to the CAFs where the ACC is the same as the group factor. Associate all of the individual CAFs that make up the group CAF.

Deleting a CAF

The delete feature of this application is only to remove a mistake that was made. If a CAF is no longer an "Active" CAF, then you should inactivate it, not delete it. A CAF cannot be deleted if it has any associated dependents (i.e., Limit)

GRADE

Grade Status

The Grade is dependent on the ACC, so the grade cannot be "Active" until the ACC is "Active". Conversely, the ACC cannot be changed to "Planned" or "Inactive" if a corresponding Grade is "Active".

Adding a Grade

When adding a Grade there are several required fields. All required fields are underlined in red in the application (and below):

ACC: This is a read-only field. Verify that the Abbrev Name for the ACC that you are applying grades to is listed in this field.

Grade: This is a dropdown box. Pick the appropriate Grade for the ACC that you chose.

Status Code: The choices are Planned, Active, or Inactive. See Grade Status above for more details. The default value for this field is "Planned".

Changing a Grade

When updating a Grade, the same rules apply as for adding a Grade (i.e., the required fields must remain populated), and the status must follow the rules outlined above.

Deleting a Grade

The delete feature of this application is only to remove a mistake that was made. If a Grade is no longer an "Active" Grade, then you should inactivate it, not delete it. A Grade cannot be deleted if it has any associated dependents (i.e., Limit)

FACTOR GRADE LIMIT (LIMIT)

Limit Status

The Limit is dependent on the CAF and the Grade. Therefore the Limit cannot become "Active" until both the CAF and the Grade are "Active". And, the CAF and Grade that make up that Limit cannot be changed to "Planned" or "Inactive" as long as the Limit is "Active".

The Limit also has an "Active Date" and an "Inactive Date" that are tied to the Status. The "Active Date" can be manually entered or changed, but the "Inactive Date" is a read-only field that is populated by the action of changing the Status to "Inactive".

If the Status is:

Planned: the "Active Date" is the date that the Limit will become "Active" (this means the date should be in the future). The "Inactive Date" should be blank. When the "Active Date" is reached, the Status will automatically change from "Planned" to "Active". Do not enter the Limit until the Active date is known.

Active: the "Active Date" is the date that the Limit became "Active" (this means the date should be in the past). The "Inactive Date" should be blank.

Inactive: the "Active Date" is the date that the Limit became "Active" (this means the date should be in the past). The "Inactive Date" will have the date that the Limit became "Inactive" (this date will be in the past). When the "Active date" is reached for the new "Planned" Limit, the planned Limit becomes "Active", and the previously Active Limit will graduate to "Inactive". If the Limit will no longer be used, and there is not a replacement for it, then the Status has to be manually changed from "Active" to "Inactive".

Adding a Limit

When adding a Limit there are several required fields. All required fields are underlined in red in the application (and below):

CAF: This is a dropdown box. It should default to the CAF that you are adding a limit to. Verify that the CAF is the correct one. Do not change it in this dropdown box. If it is not the one you want to add a limit to, go back to the "Maintain all CAFs", and click on the Limits Action for the correct CAF. The CAF must be created before you can add limits to it.

Grade: This is a dropdown box. Select the appropriate Grade for the list. The default value for this field is null, so be sure to change it to the correct Grade. The dropdown box list is limited to the valid Grades selected for that ACC. If the Grade you need is not listed, you

must go back to "Maintain ACCs" to add the valid Grade.

Status: The choices are Planned, Active, or Inactive. See Limit Status above for more details. The default value for this field is "Planned".

Active Date: This is the date that the Limit will or has become "Active". See Limit Status above for more details.

Unit of Measure: This is a dropdown box. The default value for this field is the Unit of Measure that was selected on the CAF screen. Verify that it is the correct Unit of Measure for this Grade. If the CAF has different units of measure for different grade levels, it may not be the correct one for the Grade you are entering, so pick the appropriate value for the Limit for this Grade.

Precision: This is a dropdown box. The default value for this field is the Precision that was selected on the CAF screen. Verify that it is the correct Precision for this Grade. If the CAF has different Precisions for different grade levels, it may not be the correct one for the Grade you are entering, so pick the appropriate value for the Limit for this Grade.

Min/Max: This is a dropdown box. This refers to the grade Limit value. If the Limit cannot exceed the value for that Grade, then pick Max in the dropdown box (e.g., yellow corn, DKT, for U.S. no.1, has a maximum limit of 3.0%). If the Limit must be at least the value for that Grade, then pick Min in the dropdown box (e.g., yellow corn, TW, for U.S. no. 1, has a minimum limit of 56.0 lb/bus).

Grade Limit Value and Description: One of these two fields is required. They are not underlined in the application because only one or the other can be filled in. If the Limit value is numeric, enter the number in the Grade Limit Value field. If the limit is text (e.g., well milled), enter it in the description field.

Breakpoint: This field is optional. If the limit is used for grade, and there is a breakpoint defined for the limit, record it here. The starting value and material error values are calculated based on the value for the breakpoint.

Changing a Limit

When updating a Limit, the same rules apply as for adding a Limit (i.e., the required fields must remain populated), and the status must follow the rules outlined above.

Deleting a Limit

The delete feature of this application is only to remove a mistake that was made. If a Limit is no longer an "Active" Limit, then you should inactivate it, not delete it.