30 days, an original of SF–270, “Request for Advance or Reimbursement,” may be submitted to Rural Development.

Recipient’s request for advance shall not be made in excess of reasonable outlays for the month covered.

Reporting Requirements: Grantees must provide Rural Development with an original or an electronic copy that includes all required signatures of the following reports. The reports should be submitted to the Agency contact listed on the Grant Agreement and Letter of Conditions. Failure to submit satisfactory reports on time may result in suspension or termination of the grant. Grantees will submit:

1. Form SF–425. A “Federal Financial Report,” listing expenditures according to agreed upon budget categories, on a semi-annual basis. Reporting periods end each March 31 and September 30. Reports are due 30 days after the reporting period ends.

2. Semi-annual performance reports comparing accomplishments to the objectives stated in the proposal, identifying all tasks completed to date and providing documentation supporting the reported results. If the original schedule provided in the work plan is not being met, the report should discuss the problems or delays that may affect completion of the Project.

Objectives for the next reporting period should be listed. Compliance with any special condition on the use of award funds must be discussed. Reports are due as provided in paragraph (1) of this section. Supporting documentation must also be submitted for completed tasks. The supporting documentation for completed tasks includes, but is not limited to, feasibility studies, marketing plans, business plans, articles of incorporation, and bylaws as they relate to the assistance provided.

3. Final Project performance reports comparing accomplishments to the objectives stated in the proposal, identifying all tasks completed, and providing documentation supporting the reported results. If the original schedule provided in the work plan was not met, the report must discuss the problems or delays that affected completion of the Project. Compliance with any special condition on the use of award funds must be discussed. Supporting documentation for completed tasks must also be submitted. The supporting documentation for completed tasks includes, but is not limited to, feasibility studies, marketing plans, business plans, articles of incorporation, and bylaws as they relate to the assistance provided. The final performance report is due within 90 days of the completion of the Project.

The report must also include a summary at the end of the report with the number of small socially disadvantaged producers assisted to assist in documenting the annual performance goals of the SSDPG program for Congress.

VII. Agency Contacts

For general questions about this announcement and for program technical assistance, please contact the appropriate State Office as indicated in the Addresses section of this notice.

VIII. Non-Discrimination Statement

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and, where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual’s income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA’s TARGET Center at (202) 720–2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Adjudication and Compliance, 1400 Independence Avenue, SW., Washington, DC 20250–9410, or call (800) 795–3272 (voice) or (202) 720–6382 (TDD). USDA is an equal opportunity provider and employer.

Dated: April 21, 2010.

Curtis Wiley,
Acting Administrator, Rural Business—Cooperative Service.
[FR Doc. 2010–9820 Filed 4–27–10; 8:45 am]
BILLING CODE 3410–XY–P

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

[Doc. No. AMS–FV–08–0073; FV–08–329]

United States Standards for Grades of Olive Oil and Olive-Pomace Oil

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Notice.

SUMMARY: The Agricultural Marketing Service (AMS) of the Department of Agriculture (USDA) is revising the United States Standards for Grades of Olive Oil. This revision includes updated terms consistent with objective criteria for determining quality and purity among the grades of olive oil and olive-pomace oil commonly accepted in the United States and abroad. The revision will facilitate the marketing of olive oil and olive-pomace oil, employ terms consistent with the marketplace, provide definitions for olive oil and olive-pomace oil, promote truth in labeling, and provide a basis for enforcement by State and Federal agencies if these products are mislabeled.

DATES: Effective Date: October 25, 2010.


FOR FURTHER INFORMATION CONTACT: Chere L. Shorter, Inspection and Standardization Section, Processed Products Branch, Fruit and Vegetable Programs, Agricultural Marketing Service, U.S. Department of Agriculture, phone (202) 720–5021; or fax (202) 690–1527.

SUPPLEMENTARY INFORMATION: Section 203(c) of the Agricultural Marketing Act of 1946, as amended, directs and authorizes the Secretary of Agriculture “to develop and improve standards of quality, condition, quantity, grade, and packaging, and recommend and demonstrate such standards in order to encourage uniformity and consistency in commercial practices.” AMS is committed to carrying out this authority in a manner that facilitates the marketing of agricultural commodities and makes copies of official standards available upon request. Those United States Standards for Grades of Fruits and Vegetables that no longer appear in the Code of Federal Regulations are maintained by USDA/AMS/Fruit and Vegetable Programs at http://www.ams.usda.gov/processedinspection.

AMS is revising the U.S. Standards for Grades of Olive Oil using the procedures that appear in part 36 of Title 7 of the Code of Federal Regulations (7 CFR part 36).

Background

AMS received a petition from the California Olive Oil Council (COOC), an association of domestic olive oil producers, requesting the revision of the United States Standards for Grades of
Olive Oil, to reflect current industry standards commonly accepted in the United States and abroad.

The revision replaces the first edition of the U.S. grade standards, effective since March 22, 1948 that used grades of “U.S. Grade A” or “U.S. Fancy,” “U.S. Grade B” or “U.S. Choice,” “U.S. Grade C” or “U.S. Standard,” and “U.S. Grade D” or “Substandard,” to denote levels of quality. These terms are not consistent with today’s terminology for olive oil within the industry. The U.S. industry requested the revision because they wanted to create fairness in the marketplace. The COOC contend that because there is no definition for olive oil in the U.S., some unscrupulous blenders can produce low quality olive oil or olive-pomace oil and market it as extra virgin olive oil at a premium price.

The petitioners requested that the U.S. grade standards be revised to make them consistent with the International Olive Council (IOC) trade standards for olive and olive-pomace oil. The IOC develops quality standards used by major olive oil producing countries, including Spain, Italy, Greece, Portugal, and Turkey. The IOC is an intergovernmental organization created by the United Nations that is headquartered in Madrid, Spain representing the marketing of over 95 percent of the world’s olive oil production. The IOC is responsible for administering the International Agreement on Olive Oil. The United States is not a member of the IOC but has observer status. The COOC adheres, for the most part, to these international standards.

The petitioners originally requested that no value be provided for linolenic acid in the fatty acid profile pending the outcome of a review of the appropriate fatty acid limits for linolenic acid by the Codex Alimentarius Commission (CAC) but then agreed to set a limit for linolenic acid consistent with commercial practices in the domestic industry. The CAC is a United Nations organization through which member countries, including the United States, formulate and harmonize international food standards. To date, the CAC has not made a decision on the appropriate fatty acid limits for linolenic acid and leaves this limit to individual governments to decide.

AMS published a Notice in the November 8, 2004, Federal Register (69 FR 64713) with a thirty day comment period to determine the interest in revising the U.S. grade standards in response to the request by COOC. Thirty-four comments responded to the Federal Register notice. All of the comments are available on the AMS Web site located at http://www.ams.usda.gov/processedinspection. In general, the commenters agreed that there should be clearly defined quality ratings. Additionally, several commenters requested that USDA create an organoleptic sensory panel to perform organoleptic analyses and establish a laboratory or accredit one or more labs that would perform the analyses following IOC trade standards. AMS concluded that there was positive interest in revised U.S. grade standards for olive oil.

AMS then published a Notice in the June 2, 2008, Federal Register (73 FR 31426) with a sixty-day comment period to garner comments on its proposed U.S. grade standards. Twenty-six commenters responded to the Federal Register notice including producers, consumers, trade associations, government agencies, and representatives. Comments were received from the United States, Australia, Argentina, New Zealand, Portugal, Spain, and Tunisia. All of the comments are available on http://www.regulations.gov.

The revised grade standards were largely based on the International Olive Oil (IOC) Standards. The IOC standards are recognized by the vast majority of the world’s olive oil producers and marketers including the COOC. The International standards list nine grades of olive oil in two primary categories—(1) Olive Oil and (2) Olive-pomace oil.

The revised U.S. grade standards include the same requirements as the IOC standard except for the limits for linolenic acid and campesterol. These differences were requested by COOC and were listed in the proposed standards for comment. Also, the definition for “ordinary olive oil” was removed because of its limited recognition and unpalatability. For this reason, the revised U.S. grade standards are limited to eight grades instead of nine. Linolenic acid is one of thirteen fatty acids that are analyzed to determine the purity of the olive oil or olive-pomace oil. Campesterol is another component of olive oil and olive-pomace oil. The revised grade standards provide for slightly larger limits for both of these components to account for domestic variation from the IOC limits. The revised grade standards list 22 tests that are performed to assure that the olive oil meets the purity and quality requirements. The quality tests include organoleptic characteristics such as flavor, odor, color, free fatty acid content (denotes rancidity), and absorbance in ultra-violet (UV) light (denotes quality and degree of processing). The remaining tests are performed to ascertain if the product is of olive origin, to determine if the product was refined or unprocessed, or to meet other quality requirements. The revised grade standards do not apply to olive oil blends, i.e., olive oil mixed with herbs, spices, fruits, vegetables, or other oils.

The 22 tests include free fatty acid content, peroxide value, organoleptic criteria, absorbency in ultraviolet, fatty acid composition (including linolenic acid); trans fatty acid content; desmethylersterol composition, total sterol content (including campesterol); stigmastadiene content; saturated fatty acid content at the 2-position in triglycerides; sum of palmitic and stearic acids; percent fatty acids in the 2 position; maximum difference between actual and theoretical Equivalent Carbon Number (ECN) 42 triglyceride content; erythrodiol and uvaol content; wax content; food additive (alpha tocopherol); moisture and volatile matter; insoluble impurities; flash point; trace metals; unsaponifiable matter; heavy metal; pesticide residues; and halogenated solvents. The tests and their purpose are explained in more detail in the revised U.S. grade standards at http://www.regulations.gov or http://www.ams.usda.gov/processedinspection.

The comments can be summarized into one of the following categories: technical clarifications, testing limit tolerances, implementation of the grade standards, and editorial corrections (omissions, format, and spelling). With one exception, all of the comments were in support of the proposed U.S. grade standards and many recommendations were made.

Technical Clarifications

Several of the commenters noted that the IOC trade standard was revised in 2006. That revision changed the limits for stigmastadiene in virgin olive oil from 0.15 parts per million (ppm) to 0.10 ppm and 5.0 ppm in crude olive-pomace oil. The revised trade standard also substituted a method of analysis and limits for the saturated fatty acid content at the two-position in triglycerides. This test is used to determine if the oil has been re-esterified or if the oil was substituted with animal fat. This analysis was replaced by a more precise analysis, the content of 2-glyceryl monopalmitate and new limits for palmitic acid (a fatty

...
acid). Several commenters also noted that the test, “aspect (degree of cloudiness) at 20 degrees after 24 hours,” for virgin olive oils could result in either a cloudy or clear product. The proposed grade standards incorrectly provided for a cloudy result. Some noted that the “absorbency in ultraviolet” test at K232 is an optional test in the IOC trade standard. Several noted that the proposed standards should include more objective terms for flavor in virgin olive oil and refined olive oil other than “good” and “excellent.” One commenter wanted the grade standards to clearly state that olive-pomace oil must not be labeled as olive oil. The commenter also wanted the grade standards to clearly state that alphatocopherol, a naturally occurring component in olive oil removed during the refining process, is added back only to the refined oils. Several commenters noted that the peroxide value increases in the first stages of rancidity and drops off in later stages and suggested that a clarification be made in the definition section of the proposed grade standards. AMS recognizes the aforementioned recommendations as technically valid and revised the proposed grade standards accordingly.

The specifics of these and related comments and AMS responses are summarized below:

(1) Comment: Section 52.1531 (a) Define or leave out the term “sound” as in sound fruit in the product description since olive oil is often pressed with slightly damaged olives. AMS agrees. Utilizing only sound olives for pressing olive oil implies that all of the olives must that would not meet the virgin category (highest quality) but could meet the other categories. The text is revised to read, “Olive oil is the oil obtained solely from wholesome fruit of the olive tree (Olea europaea L.), to the exclusion of oils obtained using solvents or re-esterification processes and of any mixture with oils of other kinds.”

(2) Comment: Section 52.1534. Olive oils are not graded solely on the basis of flavor and odor and free fatty acid content. AMS agrees. Olive oil is graded on a variety of characteristics which are listed in the revised grade standards. While this was provided for in the proposed grade standards, AMS has clarified the product descriptions for each category, referring to Table I through III. The definitions of the flavor descriptors are listed in Table III under the “Flavor Descriptors” section.

(3) Comment: Section 52.1534 (a)–(d) and 52.1535. Flavor descriptors such as excellent, good, reasonably good, and poor are too subjective and should be linked with median scores. AMS disagrees that the descriptors are too subjective. In fact, median scores were listed where appropriate (i.e., the virgin category) in both the proposed and in these revised grade standards. The descriptors apply to olive oil and olive-pomace oil and in addition, the virgin category provides for median scores that have been linked with the descriptors. The term “good,” which has been changed to “acceptable” in this revision. These terms are consistent with other standards. Accordingly, no other changes are made as a result of this comment.

(4) Comment: Section 52.1533. Change “may” to “must” to read, “Olive pomace oil must not be labeled as olive oil.” AMS agrees. Olive oil and olive-pomace oils are considered two separate products and shall be labeled accordingly. The revised text will read, “Olive pomace oil shall not be labeled as olive oil” to indicate that the names are not used interchangeably. This is consistent with Food and Drug Administration (FDA) labeling practices that appear in the Code of Federal Regulations (CFR) 21 CFR Section 160.22.

(5) Comment: Section 52.1539, Aspect at 20 degrees after 24 hours. Extra virgin and virgin olive oils can be filtered and therefore limpid (clear) or unfiltered and be cloudy. AMS agrees. The proposed definition was originally thought that cloudy olive oil held at a certain temperature indicated that the product was virgin oil and that this test would easily indicate this fact. Since this is not the case, the aspect test being of secondary importance was moved to Table III, making it an optional test and revised the definition in Section 52.1538 accordingly.

(6) Comment: In section 52.1538, the term ECN always refers to ECN 42 and the definition must be “the triacylglycerols with equivalent carbon number 42.” The table should indicate that ECN 42 is an absolute number. AMS agrees that ECN 42 is an absolute number since it is the difference between the two numbers, the actual Equivalent Carbon Number (ECN) and the theoretical amount. Evaluation of these components is used for the detection of seed oils and verifies authenticity and origin of oils. No change to the standards is necessary as a result of this comment.

(7) Comment: Section 52.1538. The definition for erythrodiol and uvaol should read “* * * two triterpenic dialcohols.” AMS agrees that the definition should have been more specific. The proposed grade standards described these as alcohols. The text is changed to read “Two triterpenic dialcohol components found in olive oil and olive-pomace oil.” The levels of these specific dialcohols differentiate oils that were pressed or re-esterification processes and of any mixture with oils of other kinds.”

(8) Comment: Section 52.1538. The term glyceridic structure definition describes only a monoglyceride. AMS agrees that the definition needs further clarification. Therefore, AMS is revising Table I: “The structure of esters (any class of organic compounds corresponding to an inorganic salt formed from an acid by replacement of the hydrogen by an alkyl radical) consisting of glycerol and fatty acids.”

(9) Comment: Section 52.1538. The fuzzy and muddy-sediment attributes have been combined in the revised method for organoleptic assessment of virgin olive oils. Putrid relates to the muddy-sediment defect rather than rancid flavor defect. AMS agrees that the two defects dusty and muddy-sediment should be separate because these defects have two different attributes. Sediment often forms at the bottom of containers of virgin olive oil. This vegetable water can ferment and cause a defect in flavor, i.e., muddy or putrid. The putrid description for the rancid definition was removed. Rancid was described as musty, paint, or seed-like odors. Fusty is a flavor defect attributable to poor storage conditions of the olives, usually promoting the bacterial growth of the Clostridium and Pseudomonas genera and smelling of decay, mildew, or mustiness. Appropriate changes to the text have been made as a result of this comment.

(10) Comment: In Section 52.1538, the organoleptic definition should include odor characteristics on a continuous scale. AMS agrees in part. The proposed definition referred to fuzzy odor as the typical flavor and odor of olive oil or olive-pomace oil produced from olives and the degree of positive attributes such as, but not limited to apple, green, sweet, grass, nutty, tomato and some negative attributes, such as, but not limited to musty, fusty, winey-vinegary, muddy-sediment, and rancid. For virgin olive oil, these organoleptic characteristics are assessed on a continuous scale by a panel of tasters. However, rather than changing the definition of organoleptic as suggested by the commenter, AMS believes it is more appropriate to change the definition of flavor and odor. Such changes to the text have been made as appropriate.

(11) Comment: In Section 52.1538, the definition for peroxide value needs to clarify that in the first stage of oxidation, peroxide values increase and in the second stage, peroxide values decrease even though the product is oxidized. AMS agrees that in the proposal, the definition did not explain the stages of oxidation. The revised definition makes this clarification to the text.

(12) Comment: In Section 52.1538, the definition for 2-glyceryl monopalmitate content, add “re-esterified or animal fat has been added” as in the IOC trade standard. AMS agrees. The IOC and Codex trade standards were revised in 2006 and replaced the “saturated fatty acid content at the two position in the triglycerides” test with a more specific test called “2-glyceryl monopalmitate content determination.” Therefore, the definition in the revised text will read, “This test is used to determine if the oil has been re-esterified by synthetic means or by addition of animal fat.” Pats and oils are naturally occurring esters. An ester can be synthetically formed by the reaction between an acid and an alcohol. AMS also has made a corresponding change to Table I.

(13) Comment: In Section 52.1538, trans-fatty acids are produced not only during hydrogenation but also during refining if the temperature is high. The contents of trans-oleic, trans-linoleic, and trans-linolenic acid are related to the deodorization and decoloring steps.
AMS agrees and has revised the definition for trans-fatty acids. The revised text now states, “When oil is partially hydrogenated or refined, trans conformation refers to which side of the fatty acid double bond the hydrogen is on. The trans conformation refers to hydrogen found on opposite sides of the double bond. Olive oil in its natural state is not a trans fatty acid because it has not been partially hydrogenated or refined. This test is used to determine if any processing has taken place such as, deodorization or de-coloring.” An objective method for determining color such as the Association of Official Analytical Chemists method is suggested.

AMS believes that even though color is not part of the grade, it provides information on the product and should remain in the grade standard. AMS added descriptions for the virgin grade for consistency since the IOC trade standard provides color descriptions for olive oil and olive-pomace oil. The typical color of olive oil varies from light yellow to green. Olive-pomace oil may vary from light green to brownish yellow. dark green, brown or black (for crude olive-pomace oil). The color will be evaluated as either normal or off color. Accordingly, AMS believes there is no need to make changes to this section.

AMS agrees and has made corresponding changes in the Table because the stigmastadiene limits were revised in both the IOC and Codex standards in 2006. The stigmastadiene limit moved from Table II to Table I. This test will be a required test for all lots submitted to AMS because it aids in determining if any processing has taken place such as, deodorization or de-coloring.”

AMS agrees. Alpha-tocopherol is naturally occurring in olive oil but is removed during processing and added back to refined olive oil and olive-pomace oil at a limit of 200 mg/kg. The limits for refined olive oil, olive oil and olive-pomace oil are not necessary because this measurement determines the degree of refining.

AMS agrees and has made corresponding changes in the Table because the stigmastadiene limits were revised in both the IOC and Codex standards in 2006. The stigmastadiene limit moved from Table II to Table I. This test will be a required test for all lots submitted to AMS because it aids in determining if any processing has taken place such as, deodorization or de-coloring.”

AMS agrees. Alpha-tocopherol is naturally occurring in olive oil but is removed during processing and added back to refined olive oil and olive-pomace oil at a limit of 200 mg/kg. Accordingly, the table will be revised to note “not applicable” for unreined oils. This test is only necessary to assure that the limits have not been exceeded in refined oils.

AMS agrees. Alpha-tocopherol is naturally occurring in olive oil but is removed during processing and added back to refined olive oil and olive-pomace oil at a limit of 200 mg/kg. Accordingly, the table will be revised to note “not applicable” for unreined oils. This test is only necessary to assure that the limits have not been exceeded in refined oils.

AMS agrees and has addressed this suggestion in footnote 1 in Table I. This provision is not in the Codex standard but is mentioned in the IOC trade standard. The IOC trade standard indicates that this determination is solely for application by commercial partners on an optional basis. The new footnote indicates that this test is optional.

Tolerances for Linolenic Acid and Campesterol
Several commenters noted that campesterol (one of several sterols found in olive oil) and limits for linolenic acid needed to conform to the IOC trade standard. Sterol analysis is used to detect the presence of seed oils. Sterols are one of many minor constituents of oils that are characteristic indicators of impurity of the olive oil. While some supported this difference, others were not in agreement. The reasons for AMS not making changes to the revised text as a result of these comments are detailed below.

AMS believes that the values for linolenic acid and campesterol are based on historical data originating from the Mediterranean region. Australia, Argentina, New Zealand, and other countries pointed that their olive oil was not considered when these limits were established. It is important to note that the use of U.S. grade standards is voluntary. Further, the proposed parameters for linolenic acid and campesterol are slightly more liberal than the IOC standard, i.e., a broader range of olive oil (including U.S. production) falls within the proposed standards. As a result, more products can be addressed under the proposed standards. For this reason, the maximum value for the parameter was set according to what the United States typically produces, which is up to 1.5 percent for linolenic acid. Under the revised U.S. grade standards, linolenic acid values between 1.0 and 1.5 percent and campesterol values between 4.0 and 4.5 percent would be subject to further testing when the product is officially certified by AMS. These additional tests are outlined in Table II of the revised U.S. grade standards. Values higher than 1.5 percent and 4.5 percent respectively would not meet the standards for olive oil or olive-pomace oil. The California Olive Oil Council (COOC) supported this approach because it is compatible with domestic suppliers who occasionally produce olive oil with linolenic acid or campesterol values slightly higher than the IOC standards would allow. While the U.S. produces only extra virgin olive oil, it is estimated that only one percent of the olive oil produced in the U.S. would fall above the IOC limits for linolenic acid. AMS believes that this approach is reasonable and appropriate. According to the COOC, these higher values are attributable to growing conditions. Higher values for linolenic acid are also found in olive oil made from olives grown in Australia, South America, North Africa, and parts of Europe. Also, variation in campesterol levels has been reported in literature. The sterol and alcohol composition of Cornicabra virgin olive oil during the crop seasons from 1997/1998 to 2001/2002 were reported. The median value of campesterol was 0.4 percent and ranged from 3.4 to 4.5 percent in the five crop seasons studied; indicating that high natural content is a peculiar characteristic of the Cornicabra virgin olive oil. Cornicabra is a variety of olive. The limit for linolenic acid has not yet been established in the Codex standard to this date. In both cases olive oil or olive-pomace oil found to show limits between 1.0 and 1.5 percent (linolenic acid) and 4.0 and 4.5 percent (campesterol) will require the additional verification testing listed in Table II of the revised U.S. grade standards. Accordingly, no changes to the standards are made as a result of these comments.

Implementation
Several commenters noted that all of the tests were considered mandatory in the IOC standard and all should be included in Table I. While this may be appropriate for the IOC standard, AMS continues to believe that it is more appropriate for the U.S. standards that tests be divided into categories and that the number of mandatory tests be limited. The AMS grade standards traditionally emphasize organoleptic characteristics. AMS performs grading services on a lot by lot basis. A lot is defined as any number of containers of the same size, type, and style located in the same warehouse or conveyance. A lot can also be described as being produced during a period or shift lasting up to 24 hours. In both cases the lot must be available for inspection at one time. The fees to perform all 22 analytical tests on every lot would be cost prohibitive (over $7,000 per lot). Unlike the IOC standards, more than one sample is tested per lot. However, this does not prevent an applicant from requesting that additional tests be done to meet an international standard or other specification. The grade standards represent a minimum requirement to meet U.S. grades so that an applicant can use USDA grade marks on its label. A certificate is a written report that shows the pertinent facts concerning the quality, grade, and condition of the product, and may include useful descriptive information about the product and the containers in which it is packed.

The revised U.S. grade standards divide tests into three categories: Mandatory (Table I), Confirmatory (Table II), and Optional (Table III). The

mandatory tests shall be performed on all lots of olive oil and olive-pomace oil. These are listed in Table I and include flavor and odor, color, free fatty acid expressed as oleic acid, peroxide value, absorbency in ultraviolet (UV), fatty acid composition, trans fatty acid content, desmethylsterol composition, total sterol, and stigmastadiene content. Table II lists the tests for purity: Maximum difference between actual and theoretical ECN 42 triacylglycerol content; erythrodiol and uvaol; waxes; and 2-glycerol monopalmitate content. Table III lists tests to be used if one wants additional information on other characteristics of the oil. These include moisture and volatile matter, insoluble impurities, flash point, heavy metals, unsaponifiable matter, aspect at 20 degrees Celsius after 24 hours, pesticide residues, and halogenated solvents. Some of these tests are monitored by FDA (i.e., heavy metals, pesticide residues and halogenated solvents.) In addition, one commenter did not agree with the "U.S." term preceding the grade names (e.g., "U.S. Extra Virgin Olive Oil"). One commenter suggested that a traditional method using the pressing ratio (weight of the olives versus weight of the resultant oil) be used instead. One commenter wanted to represent the amount of virgin olive oil added to refined oil to produce olive oil. And finally, one commenter was not in support of the proposed grade standards because he felt that the IOC trade standard was unreliable and would have negative implications on "New World" olive oil producers. All of these comments are discussed below.

(19) Comment: Sterol composition, maximum difference between actual and theoretical ECN42, erythrodiol, and waxes tests should be mandatory.

AMS agrees in part and moved some of the corresponding analyses to Table I, making them mandatory. These include total sterols, stigmastadiene, and desmethylsterol composition because these tests detect specific properties of the oil that determine its purity and are not covered by other tests in Table I.

The ECN42 analysis was not included in Table I because this test detects seed oils. Detection of seed oils is covered by other analyses already listed in Table I, namely desmethylsterol composition, fatty acid composition, and stigmastadiene content. Erythrodiol, uvaol, and wax content analyses detect the presence of pomace oil and oils produced from solvent extraction. These analyses are already covered by other tests that are listed in Table I, namely stigmastadiene content and absorbance in ultraviolet. However, ECN42, erythrodiol and uvaol, waxes, content of 2-glycerol monopalmitate are included in Table II. The tests listed in Table II will apply if analytical results do not comply with label declaration for the purity criteria listed in Table I, in the following cases: (1) If linolenic acid values are between 1.0 and 1.5 percent, (2) if the campesterol values are between 4.0 and 4.5 percent, or (3) if the applicant's request.

(20) Comment: The names should comply with the IOC method for Codex standards without the "U.S." term preceding the name.

The names of the grades are preceded by the term "U.S." only if the product has been officially sampled and graded by AMS. Accordingly, the term "U.S." is necessary and appropriate because it is used in conjunction with an official grade statement, or certificate, and can be used on labels, if an applicant desires to indicate that the product has been officially graded by USDA. Products would not be required to be labeled differently. No change was made as a result of this comment.

Comment: The olive oil pressing ratio (weight of olives to weight of olive oil yielded) is the traditional method for judging the quality of the olive oil. Below 20 percent is considered olive-pomace oil.

AMS disagrees that the pressing method is an appropriate method to include in the U.S. grade standards. Product yield depends on many complex factors besides the press ratio. These factors include the variety of olives, the pressing method used, ripeness, and moisture. The revised standards establish analytical and organoleptic methods for determining conformance with the various grade requirements regardless of the age, moisture, processing method, or variety of the in-going olives.

(21) Comment: The IOC chemical markers represent a low minimum standard and that there would be negative implications on the burgeoning olive oil industries of California, Arizona, Texas, Australia, New Zealand, Chile, and Argentina. USDA should adopt a few chemical tests that are easily monitored in lieu of the proposed standard.

AMS agrees that the revised grade standards would allow applicants assurance of product quality through inspection and testing using objective chemical and organoleptic methods. Applicants of the AMS inspection services could demonstrate that their product has been officially graded by using the official USDA marks on their packaging or other materials. This would help consumers and buyers differentiate between grades and better reflect the value of their purchases. The U.S. grade standards establish terms that can objectively define product quality and help ensure that consumers receive what they expect when they purchase certain food products.

There were additional comments or clarifications requested by some commenters on the implementation of the grade standards as discussed below.

(22) Comment: Will the tests be performed in a timely manner?

AMS will use the AMS Science and Technology Laboratory in Blakely, Georgia for both the analytical and organoleptic testing. Sample results will be available in a timely manner.

(23) Comment: What assurances are there of the quality of the tasters?

AMS will perform the procedures set forth in the CO/T.20/Doc. No. 15, "Organoleptic assessment of virgin olive oil," as listed in the standards. A panel of AMS tasters will be trained by IOC qualified trainers. In addition to the flavor panel, sample results would be monitored regularly through a systematic review process where samples are sent to a designated AMS office for evaluation and concurrence with previous results.

(24) Comment: AMS should consider providing median terms for refined olive oil. Under the IOC trade standards and the Codex standards, only the virgin olive oils are subject to organoleptic assessment through a flavor panel. Therefore, median scores are not applicable for refined olive oil products or for any of the five-pomace oils. However, AMS will flavor these oils. The revised grade standards require that refined oils have at least acceptable flavor.

(25) Comment: AMS should specify a minimum quantity of virgin olive oil added to refined olive oil for olive oil which is a blend of the two.

Neither the IOC trade standard nor the Codex standard defines the amount of virgin olive oil blended with refined olive oil to produce olive oil. Such a proposal would require additional research and accordingly is not included in the revised standards.

(26) Comment: The sample unit of 375 ml is too much; 250 ml should be sufficient to perform the tests.

AMS disagrees. AMS believes that the flavor panel review alone requires 15-20 milliliters (ml) per person or 240 ml for a twelve-person flavor panel. However, this does not include an additional amount required for analytical testing. Therefore, after further review 500 ml is determined to be needed to properly retest a sample for any reason.

Editorial Comments

AMS agreed with many of the following suggestions and comments as having merit. The following reflects such suggestions and comments.

(27) Comment: Section 52.1538 Definition should read "Desmethylsterol" not "Dimethylsterol.

AMS agrees and corrected the typographical error.

(28) Comment: "Ordinary olive" oil was removed from the standard but reference is made to it in Section 52.1542 and should be removed.

AMS agrees and removed references to ordinary olive oil from the section because ordinary olive oil is not a part of the standard. This product was an olive oil of lower quality than virgin olive oil but of slightly better quality than lampante oil. AMS decided in the proposed grade standards that because this product is not often used in trade, is considered fairly unpalatable, that it would be considered as lampante oil and removed from the grade standards.

(29) Comment: Moisture and insoluble impurities for lampante olive oil are not defined in the IOC trade standard or Codex standard because the product will be refined.

AMS agrees that the IOC and Codex standards do not set limits for moisture or
insoluble impurities for lampante oil. Because this was an oversight, Table III is revised to show that these analyses are “Not Applicable” for “moisture and volatile matter” and “insoluble impurities in light petroleum.”

(30) Comment: A method of analysis for preparation of methyl esters should accompany the methods of analysis for fatty acid composition.

AMS agrees and added the suggested method to the list of methods of analysis. AMS also found that pesticide residue tests were included in the revised 2006 IOC trade standards so this test was added to the U.S. grade standards.

(31) Comment: For future consideration:

i. Consider defining limits for premium extra virgin olive oil.

ii. Set new limits for fatty acid composition, desmethylsterol, total sterol, saturated fatty acid in the two position in triglycerides and unsaponifiable matter.

iii. Set stricter limits for free fatty acid as oleic, peroxide value, absorbency in UV.


AMS continually reviews its grade standards. AMS facilitates the fair and efficient marketing of agricultural products by promulgating voluntary official grade standards. AMS develops, revises, suspends, or terminates the official grade standards under procedures that allow for input by interested parties. As new science becomes available or the IOC and Codex standards are revised, AMS will consider updating the grade standards as appropriate.

AMS believes that the revised grade standards would facilitate the marketing of olive oil and olive-pomace oil, better reflect terms that are currently in use in the marketplace, provide definitions for olive oil and olive-pomace oil, promote truth in labeling, and provide a basis for enforcement by State and Federal agencies if these products are mislabeled.

The official grades of olive oil and olive-pomace oil in these standards are covered by the procedures set forth in the Regulations Governing the Inspection and Certification for Processed Fruits and Vegetables, Processed Products Thereof and Certain Other Processed Food Products (7 CFR 52.1–52.83).

The revised U.S. Standards for Grades of Olive Oil and Olive-Pomace Oil will become effective 180 days after publication of this notice in the Federal Register to allow sufficient time to implement the standards.


David R. Shipman,
Acting Administrator, Agricultural Marketing Service.

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