

# LINEAR APPRAISAL SOP



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## **1.0 SCOPE & APPLICATION**

1.1 This Standard Operating Procedure (SOP) is applicable to the systematic collection of data documenting evaluations for participants in ADGA's Linear Appraisal Program. The application of these procedures is to provide the framework for a uniform, accurate record system to be used for (1) making farm management decisions; (2) educational programs and research, including the genetic evaluation of does and sires; (3) breed association(s); and (4) the promotion and sale of animals.

## **2.0 PROGRAM SUMMARY**

2.1 Evaluations should be done in accordance with the latest version of the ADGA Guidebook, Article X, Linear Appraisal. All procedures are to be followed. Dairy goat herds evaluated with the linear appraisal system have been instrumental in developing the information needed for the genetic evaluation of linear traits and continue to provide the data for ongoing efforts in determining the relationship of the program areas to longevity and production.

2.2 Procedures outlined in this document are in addition to that document. The basic and minimum standards are to be uniformly followed. They ensure that evaluations will provide the accuracy, uniformity, and integrity essential to dairy goat type evaluation records.

2.3 The linear appraisal system evaluates individual type traits that affect structural and functional durability, to take advantage of the potential for genetic improvement through selection. There are three parts to the linear appraisal of an animal; linear traits, structural/functional characteristics, and major scorecard categories that includes a final score.

2.4 Linear trait evaluation describes each of 15 primary traits on a scale ranging from 1-50, that represents the biological range for a particular trait. The description does not set a certain point on a range as "ideal," nor are more points, fewer points, or mid-range points more desirable. Instead, these point scores objectively describe the condition of a trait. The evaluation of these traits represents the true "linear" portion of the program. It is the primary linear trait data, plus the animal's final score, that are used by ADGA from the USDA algorithm to develop sire summaries.

2.5 The structural/functional component of the appraisal program involves the assessment of the animal in 8 areas: head, shoulder assembly, front legs, rear legs, feet, back, rump, and udder texture. The appraiser will note, for each of these 8 areas, if it is Poor (P) or Fair (F) (both of which indicate a problem to the herd owner), Acceptable (A), Good Plus (G), Very Good (V), or Excellent (E) as described in Section 17.1. This component will assist the owner in making management decisions about individual animals and promoting their herd.

2.6 The final component of the appraisal is the evaluation of the 4 (3 for a buck) major categories, General Appearance, Body Capacity, Dairy Strength, and Mammary System, as well as the assigning of a final score. As above, this component will assist in management decisions and promotion.

## **3.0 AUTHORITY**

3.1 The ADGA Board of Directors and the Council on Dairy Cattle Breeding (CDCB) approves <sup>[2017]</sup> the data necessary from the linear appraisal program to ensure the flow of records for industry purposes including genetic evaluation programs.

## **4.0 RESPONSIBILITY**

4.1 Linear Appraisal staff and herd owners, as well as persons in their employ, are individually and collectively responsible for adherence to program procedures.

4.2 There are certain expectations ADGA has for both Linear Appraisers and Member Herd Participants. There are many cross-over connections between members and appraisers, but while appraisers are on the farm for linear appraisal, they are employees of ADGA and are there for the sole purpose of appraising the herd. It is paramount that discussions only concern the animals in the herd being appraised. The appraisers should not be expected to

discuss animals in other herds, give medical advice or diagnosis, give management recommendations, or discuss other herds or members. Courtesy is expected from all regarding the session. The appraisers have a schedule to keep so will not usually be able to stay for meals and visiting. If there are any problems, the Performance Programs Manager or Clerk shall be contacted immediately.

- 4.3 To participate in this dairy record keeping program, herd owners must agree to conform to these procedures, along with registry requirements.

## **5.0 MEASUREMENTS AND RECORD-KEEPING EQUIPMENT**

5.1 **Physical Measurements** – stature will be evaluated and rump width will be measured by the appraiser using the ADGA Approved devices (Appendix E), which belong to the appraiser. All animals with a final score 93 or greater, and any animal with miscellaneous code (MC) 82 (over-height) will have an exact measurement recorded in inches. The appraiser must be consistent in measuring method. In the case of failure of the approved devices, other devices may be used in an emergency.

5.2 Equipment used for collection of type data by the appraiser

- A. measuring device(s)
  - 1. Ketchum Measuring Tape
  - 2. Wicket Measuring Device
  - 3. Digital Calipers
- B. Digital Camera and Recording Device
- C. electronic field device
- D. field data sheets for backup

## **6.0 BIOSECURITY**

6.1 Every effort will be made by the appraiser to ensure reasonable biosecurity measures.

6.2 **Reporting** of specific issues of biosecurity within a herd is the responsibility of the herd owner and should be communicated to the appraiser or to the Performance Programs Manager prior to the session.

6.3 Appraisers have the right to decline scoring any animal with visible signs suspected as being a contagious disease. These animals will be designated on the linear appraisal worksheet as Not-in-Condition – Biosecurity Risk (NIC-BR). Animals designated as NIC-BR will not be counted toward the number of animals presented for purposes of calculating the final costs for the minimum stop and per animal fees as charged and adjusted at the ADGA office.

6.4 At the discretion of the appraiser, an appraisal session may be terminated if issues of contamination by infectious diseases, especially zoonotic diseases, are of concern.

## **7.0 SESSION GUIDELINES FOR APPRAISERS & HERD OWNERS**

7.1 **The appraiser** shall arrive at the farm at the scheduled time or, if late arrival is anticipated, call the herd owner as far in advance as possible.

7.2 During the Linear Appraisal session, the appraiser will interact with the herd owner or handler in a positive manner providing brief comments while scoring to help the herd owner understand the process. The appraiser should give an opening explanation or introduction of the ADGA Linear Appraisal Program to the herd owner(s).

7.3 The appraiser will always be willing to explain why an animal was evaluated as it was. If questions are raised, it is not assumed judgment is being questioned. With the growth of the program, many breeders are still learning and are quite sincere in their desire to learn.

7.4 Udder instruction for owners: Does are best prepared by having them uddered to the point of fullness with consideration to udder texture, elasticity, and the doe's ease and comfort while on the move or at rest.

7.5 The appraiser shall proceed to appraise the herd allowing the breeder opportunity for discussion.

7.6 The appraiser shall make sure the owner can hear the explanations, speaking with sufficient volume and clarity, explaining observations carefully.

- 7.7** The appraiser shall direct most of their attention to the owner.
- 7.8** Appraisers should not evaluate animals judged by them within a two-week period prior to and a two-week period after the appraisal session, except at the discretion of the Performance Programs Manager in cases where no other appraiser is available.
- 7.9** The appraiser shall note the condition of the herd and not discriminate against herds that are not prepared (groomed, uddered properly, etc.) as much as others.
- 7.10** No test reports, former scores, records, or photos should be used by the appraiser in scoring.
- 7.11** The appraiser shall avoid giving their impression of a sire's strong or weak points when appraising offspring. Such comments may be interpreted as biased for or against daughters of that sire.

**7.12 Owner Option**

The owner has the right to not present any animal that:

1. Was scored the previous year
2. Has a permanent (5 years or older) score
3. Is 7 years or older.

- 7.13** Tattoos (or approved EID) are to be read before scoring and must meet all the requirements of the ADGA animal identification (tattoo/EID) policy.
- 7.14** Any animal presented with an illegible or incorrect tattoo or EID cannot be scored. However, owners should be aware that these animals will be counted toward the number of animals presented for purposes of calculating the final costs for the minimum stop and per animal fees as charged and adjusted at the ADGA office.
- 7.15** The appraiser shall avoid discrimination against animals because of adverse weather, sickness, injury, or other similar conditions. If the appraiser is unable to place an accurate score on an animal because one or more of these conditions exists, or because the animal is uncooperative, the animal shall be ranked "Not in Condition" (NIC) on the score sheet. In all cases, the linear appraiser determines whether the animal is in sufficient condition to be appraised.
- 7.16** Miscellaneous code 99 may be used when an owner wants partial information on an animal that cannot be fully scored such as a mastectomized or permanently lame animal. No final category or final score will be assigned. Code 99 is not intended for the evaluation of fully functioning animals in their dry period. The owner is charged the regular appraisal fee. Animals coded MC99 are automatically excluded from genetic evaluations [2023].
- 7.17** Appraisers are encouraged to employ the "Not in Condition" designation for does that have been dry for an extended period (that is, over 1 year), or does that are too newly fresh as a first freshener. Animals that cannot be controlled enough to evaluate will be marked (CBC). This is to be determined by the appraiser.
- 7.18** Animals marked Not in Condition (NIC) will not be counted toward the number of animals presented for purposes of calculating the final costs for the minimum stop and per animal fees as charged and adjusted at the ADGA office. Animals marked Cannot Be Controlled (CBC) will be counted toward the number of animals presented for purposes of calculating the final costs for the minimum stop and per animal fees as charged and adjusted at the ADGA office.
- 7.19** The appraiser has the option of recalling any animal in a herd for reconsideration during the time the herd is being evaluated. No score is final until the appraiser deems the session complete.
- 7.20** When evaluating a particular breed group, if the appraiser believes there are more animals of that breed group on the premises, which are not being presented, the appraiser will:

A. Explain the rule and ask to evaluate those animals.

B. If the owner cannot explain the situation adequately and/or refuses to present, the incident is to be reported to the ADGA Performance Program Manager for further investigation.

C. The ADGA Performance Programs Manager will report any infractions to the Linear Appraisal Committee for action.

**7.21** Appraisers can stop an appraisal session under situations where their personal safety is at risk. Documentation of such instances should be promptly submitted to the ADGA Performance Programs Manager or the ADGA office, for action and may result in the permanent loss of linear appraisal privileges for the herd owner at fault.

**7.22** Whenever an appraisal session is not completed, the appraiser should close out of the session and provide the digital file, just as they would for a completed session.

## **8.0 HOST HERDS**

**8.1** Host herds shall be notified which transport herds are signed up to be at the host herd's stop. The host herd must give permission to transport herds to be at the session.

**8.2** One introductory/educational presentation will be given at the start of a session stop. Herd owners wanting to see a presentation must be present at the start of the session. In cases where a host stop is a full day, a second presentation may be offered in the afternoon.

**8.3** Host herds must have ample room to accommodate multiple trailers.

**8.4** Transport herds should be present before their session starts so that the appraisal session is not delayed. If many animals are being appraised at the stop, the host should contact all transport herds to develop a detailed schedule for the session. Any plan to stagger herds should be scheduled based on the guideline that the appraiser will score about 8 animals per hour. Transport herds must arrive at the host farm 30 minutes before their scheduled start time. All herds must understand that start times are estimates intended to best ensure the appraiser can continuously score animals during the session.

**8.5** No veterinary note is needed to excuse a sick, injured, or pregnant does that should not be transported to an appraisal site. The appraiser will note on the sheet that the animal was not presented documenting the reason provided by the owner. The signature of the herd owner on the appraisal sheet acts as the statement of truth for this information.

## **9.0 HUMAN INFECTIOUS DISEASE OUTBREAK PRECAUTIONS AND REQUIREMENTS**

**9.1** Upon application for Linear Appraisal, Herd Owners must agree to abide by the following guidelines:

**9.2** Guidelines provided by the CDC and State and Local Health Departments will be consulted for current recommendations regarding transmission avoidance.

**9.3** If an appraisal session needs to be cancelled and documentation is provided verifying that cancellation is due to a human infectious disease, any prepaid stop charges and animal fees will be credited to the account(s) of the herd owner(s). However, the initial application fee will be retained by ADGA to offset some costs associated with the appraisal trip.

## **10.0 DATA COLLECTION – SCORING - GENERAL RULES**



- 10.1** All data and information must be documented on the field device or paper data sheets in an emergency. Missing data must be verified.
- 10.2** All evaluation of animals with differences between sides of the goat due to health or injury will be done using the unaffected side. Other differences will be averaged.
- 10.3** The final score must conform to a calculation based on the Linear Appraisal category scores and the values listed in the ADGA scorecard. After completion of the session, the Linear Appraisal report shall not be added to or changes by anyone except by proper review and action by the PPM or automated programming.

**10.4**  
**Does**

- A. A doe must have freshened at least twice to be scored Excellent overall.
- B. A first freshener may be scored Excellent overall if she has been in milk for 365 days or more and is in milk at the time of appraisal. The appraiser will record a Final Score of 89 and note that a higher score may be given if verification of lactation length is confirmed by Performance Programs Manager. Verification must be confirmed by official DHI records, offspring registration or other verifiable information.
- C. Springing does that have never freshened or does that have never been milked regularly may not be evaluated regardless of their proximity to freshening.
- D. Linear and Structural categories will be evaluated without adjusting for stage of lactation or number of lactations. These adjustments will be accounted for in the final categories. An exception is made if the doe is 6 or fewer weeks fresh - the appraiser may evaluate the dorsal process when scoring rump structural category with this information. Age adjustment applies only to animals seven (7) years and older when scoring the major categories and determining final score [2022].
- E. Does with a general or breed specific disqualification cannot be Excellent in the major category that corresponds to that disqualification code or in the overall final score.

**10.5 Bucks**

- A. Bucks must be 2 years of age or older before a final score of Excellent (90 or greater) can be awarded.
- B. Bucks with a general or breed specific disqualification cannot be Excellent in General Appearance or in overall Final Score.

**11.0 DATA COLLECTION – SCORING GENERAL APPEARANCE**

- 11.1** All animals being scored must be observed on the walk or as they come to rest when appropriate for the trait.

**11.2**  
**Height**

- A. Stature will be measured and recorded as a linear scale on all goats [2024].
- B. Dairy goats are to be measured at the highest point of their withers. The front legs shall be set as squarely as possible underneath the withers. The rear legs shall be set so that when an imaginary line is drawn from the pin bone to the ground, it passes through the hock
- C. The handlers shall have one hand on the goat's collar and the other hand not touching the goat. The head shall be held up alertly, but not stretched up to artificially reach a minimum height or pushed down to artificially remain under a maximum height.

D. The goat shall be measured on a solid, level surface. The measuring device should have a base so that it may sit squarely on the ground. The device shall be placed parallel to the goat's front leg. The device shall have a crossbar to extend over the withers. It is important that the crossbar be as level as possible, and that the entire device be held as straight as possible to obtain the most accurate measurement. Horizontal and vertical levelness should be ensured.

E. If over-height for a miniature breed, the General Appearance category and Final Score should reflect that, and Miscellaneous Code 82 assigned. Reference SOP 10.5E and SOP 10.6B

F. Mature (4 years of age and older) animals of any breed under minimum breed standard for height, that are otherwise exceptional in type could be Excellent overall and in the General Appearance category. Reference Code MC83.

**11.3** Rear leg side view is evaluated when the animal comes to a stop and the rears legs are fully weightbearing.

**11.4** Rump width should be measured from the rear between the thurls, measuring from the top, outermost portion of the bone, not in the hollow. Digital Calipers will be used to capture the measurement.

## **12.0 DATA COLLECTION – SCORING DAIRY STRENGTH**

**12.1** Dairyness is to be assessed as a visual evaluation in side view. It is evaluated as flatness of bone and openness of rib. Animals that are extremely round boned and tight ribbed are assigned 5 points or less. Animals that are extremely flat boned and open ribbed are assigned 45 points or more. The appraiser has the option of handling animals to clarify their placement within the linear range. Round bone, tight ribbed animals can only score Fair and poor in the final category score for Dairy Strength [2024].

**12.2** Strength is assessed using the depth and width of chest in front view from extremely narrow and frail to extremely wide and strong. Strength is measured from weakness (less than 20 points) through intermediate to strength (greater than 30 points) [2024].

## **13.0 DATA COLLECTION – SCORING BODY CAPACITY**

**13.1** Goats with a narrow, pinched heart girth, overall frailness, short ribs, or ribs that are close together, resulting in a short, cramped body may only be rated Fair or Poor in the final category for Body Capacity.

**13.2** Body depth is evaluated from the top of the spine to the bottom of the barrel at the point of the last rib. The horizontal line between the knee and the hock can be used to assist in the assessment of the trait. A very deep body is assigned 45 points or more, while a very shallow one is assigned 5 points or less.

## **14.0 DATA COLLECTION – SCORING MAMMARY SYSTEMS**

**14.1** Does with dry mammary systems are eligible to receive a mammary score in the Excellent range.

**14.2** Udder texture is only recorded on excellent 93 animals and higher. It is recorded on the high score verification form. Unless deemed necessary for overall mammary scoring by the appraiser, only does considered for FS3 and above will be evaluated for udder texture and **MUST** be re-presented milked out-

- 14.3 All evaluations of does with differences between halves of their udder due to health or injury will be done using the unaffected side. In the case of udder depth and medial, the functional-appearing half will be used.
- 14.4 The appraiser may request that over-uddered does be milked by the owner to allow a more accurate evaluation.
- 14.5 Twisted udders will be evaluated from all sides to capture the differences.
- 14.6 Fore-udder evaluation considers the extension of udder forward of the teats, the extension of the lateral and the width across the lateral without regard to position of udder on the body wall.
- 14.7 Goats with short, bulgy, or loose fore udders; low, narrow, loose, or pinched rear udders; and udders that are ties, twisted or pendulous may be considered for a rating of Fair or Poor in Mammary.
- 14.8 Udder depth, viewed at eye level, is evaluated as the vertical distance between the floor of the udder and the point of the hock.
- 14.9 Rear Udder Arch is measured at the area of width where height is assessed. If the udder is carried too far forward, the rear udder arch may need to be evaluated as the animal moves. If the arch still has the look of a point at center-top, it is a 19 or less. Once rounded, the score is 20 and over.

**14.10 Rear Udder Height:**

A. Is not scored on bucks

B. For mature does, as ADGA recognizes multiple-sized breeds with different body frames, absolute measurement is not the most accurate assessment of the trait. This trait will be scored on the height in relation to the body rather than be based on conversion of a measurement to the linear score. The Rear Udder Height linear trait is scored by the appraiser by visually assessing the halfway spot between the base of the pelvic arch and the point of hock. This point, called the midpoint, is a score of 10 on the linear scale. The three-quarter mark above the hock is a score of 30 on the linear scale. Top of milk secretory tissue in relation to the hock  $\frac{1}{2}$ =10 points,  $\frac{5}{8}$ =20 points,  $\frac{3}{4}$ = 30 points,  $\frac{7}{8}$ =40 points, at pelvic arch= 50 points

- 14.11 Rear Udder Side View is scored in a 4 point range from 0 (no udder behind the leg) to 4 (extremely rounded and bulging beyond the vulva). Extremely flat rear udders with little capacity are assigned 0 or 1; rear udders with intermediate fullness are assigned 2 or 3; and rear udders that are extremely bulgy or protruding are assigned a 4.
- 14.12 Teat Length (TL) is assessed at eye level or from a distance that allows accurate evaluation [2017] and is the length of the teat from the base where it meets the udder where teat diameter is assessed, to the end of the teat when evaluated from the rear. It is a visual assessment converting inches to a scale [2018] for the purpose of data collection started in 2015. The distance can be assessed at side profile should it be necessary.

the potential for or evidence of commendable lifetime performance. A Good Plus animal may display immaturity in structural trait characteristics or age- related wear at the current appraisal yet indicates a tendency towards full productivity. A Good Plus animal may also display full productivity yet still possess minor defects preventing advancement to a higher category. Regardless, the defects set relatively marginal limitations on the ability of the animal to sustain function over an extended period.

**15.0 DATA COLLECTION - LINEAR APPRAISAL SCORING RANGE DEFINITIONS**

**15.0** Definition of FUNCTION: The ability to be productive, relative to age, without significant detriment to strength, soundness, dairy form, or mobility into reasonable maturity.

A. **59 and below = Poor.** Animals in this category demonstrate an inability to function. A Poor animal possesses severe structural defects in multiple categories inhibiting productivity at any stage of maturity.

B. **60-69 = Fair.** Animals in this category demonstrate an inability to sustain function through maturity or a loss of function with maturity. A Fair animal possesses serious structural defects significantly limiting longevity and productivity.

C. **70-79 = Acceptable.** Animals in this category demonstrate form conducive to adequate longevity and productivity. An Acceptable animal possesses moderate defects related to function. The defects may be attributed to immaturity in younger animals or undesirable wear in more mature animals yet evidence a minimal standard of longevity and productivity.

D. **80-84 = Good .** Animals in this category demonstrate the potential for or evidence of commendable lifetime performance. A Good Plus animal may display immaturity in structural trait characteristics or age- related wear at the current appraisal yet indicates a tendency towards full productivity. A Good Plus animal may also display full productivity yet still possess minor defects preventing advancement to a higher category. Regardless, the defects set relatively marginal limitations on the ability of the animal to sustain function over an extended period.

E. **85-89 = Very Good.** Animals in this category demonstrate form indicative of the ability to function at a high level over an extended period. A Very Good animal possesses conformation and dairy quality enabling superior lifetime performance. Younger animals in this category excel in most if not all structural categories permitting them to perform at a high level respective to their stage of maturity. More mature animals in this category display from indicating a high level of function over a long productive life coupled with only minor primarily age-related defects. Exceptional younger animals in this category are not eligible for a higher score in accordance with section 10.5. B.

F. 90 and above = **Excellent.**

1. **90:** Animals at this score demonstrate exceptional qualities in many categories and have proven their functionality and productivity into at least their second lactation or have milked 365 days in their first lactation.

2. **91:** Animals at this score are exceptional overall and are extremely correct as evidenced by ease of movement with full function and productivity. Animals in advanced maturity maintain a high level of function although they may start showing some age-related defects.

3. **92:** Animals at this score are more extreme in some of their exceptional traits resulting in greater productivity and function. This includes a higher degree of structural correctness, style, and balance evidenced on the move and at rest.

4. **93:** Animals are approaching or have reached their full maturity at this score and exhibit a combination of exceptional characteristics including desirability of dairy form, structural correctness, strength, and capacity. Animals at this elite score are moving with ease and balance while maintaining a mammary system that is exceptional in its structure, functionality, and productivity.

5. **94:** Animals at this score have exceptional movement, smoothness, and correlation of parts and exhibit exceptional qualities in all categories. Animals at this score are expected to demonstrate a high level of functionality and productivity appropriate to their advancing level of maturity.

6. **95 to 100:** Animals scoring in this elite category will possess traits exceeding all other levels of excellence previously established in the Excellent range, approaching even greater perfection in the minor traits and with few age-related changes. Demonstrating extremely high functionality and apparent productivity, this score requires verifiable evidence of production.

## **16.0 DATA COLLECTION – HIGH SCORE VERIFICATION PROCEDURES**

**16.1** When an animal is considered for a Final Score meeting or exceeding **93**, the appraiser will record trait breakdowns and structural category scores and assign a maximum final score of **93** that day. Category scores shall also contain the numerical score that was used to calculate the Final Score, i.e., FS: E 94 GA: E 94 DS: E92 BC: E 95 MA: E 93. The LA worksheet left with herd owner must have the customary letter scores and the owner will not be made aware of the potential higher score.

**16.2** For assigning a Final Score of **93** or greater, the appraiser will also submit the following unposed digital photographs for the verification/archival procedure. Photos of the animal will be taken immediately after assigning the Final Score on a hard, level surface. Photos required of high-scoring animals are: One side-view in milk, Top, rear view in milk,

and rear view milked out. A short video of the animal, in milk, walking in side view, walking towards the camera and walking away from the camera will be required.

**16.3** The appraiser will obtain a signature from the owner releasing the photos for use in the verification/archival process if not already on file with the original application. Photos of Verification Animals shall remain the property of ADGA.

**16.4** For an animal to score 94 or higher, the appraiser will then contact the Performance Programs Manager as soon as possible and identify the animal under consideration. The appraiser will also submit the following information/data to the Performance Programs Manager within 10 days of the session.

- A. Digital photos and video
- B. Complete breakdown of animal
  - (1). Linear Breakdown
  - (2). Structural Category Score

(3). Remarks, Defects, Miscellaneous coding

(4). Udder Texture

(5). Stature Measurement

C. Registration number, number of lactations, freshening date, number of hours of milk, and any other extenuating circumstances that might affect score (mastitis, scar tissue, injury).

D. Numerical Breakdown of Category Scores and Final Score

(1). Does: FS, GA, DS, BC, MA (2).

Bucks: FS, GA, DS, BC

**16.5** Upon initial notification of the animal under consideration, the Performance Programs Manager will randomly select two Appraisers to review the data. They will confer with the on-farm appraiser and reach a simple majority opinion and notify the Performance Programs Manager of the results within thirty (30) days from the date the material is mailed from the office.

**16.6** Possible outcomes from the Verification Procedure are:

A. Score of greater than 93 verified and certified – new Final Score assigned from category average and official.

B. Score (93) verified and category score average not certified – Final Score remains at initially assigned score of 93 with category scores of Excellent.

**16.7** The owner will be notified of a decision to raise the score from 93 to the higher value immediately by letter from the Performance Programs Manager.

**17.0** **DATA COLLECTION – MISCELLANEOUS CODES**

**17.1** Miscellaneous Codes can be found in Appendix A.

**17.2** Descriptive Coding is used to provide additional information to the herd owner regarding specific traits and can be used in any category.

**17.3** When a miscellaneous code is considered functional in its effect, the trait must be coded Acceptable, Fair or Poor. A functional code should be used only if the trait is 70% or less than ideal.

**17.4** Caution should be used when applying codes 75 or 76 to very young (yearling) or very old animals and only after direct examination of the teeth and dental pad. Position of contact of the incisor teeth with the dental pad may change before and during permanent incisor eruption in younger goats (yearlings) or with shifting or missing incisors in goats of advanced age.

**17.5** The 02 - stale code may be applied to does whose apparent evidence of function is significantly influenced by extended, as indicated by body condition, state of udder involution, etc. This code may be used only for does more than 305 days in milk or for does with current lactation initiated by abortion. ADGA guidebook definition of an aborted doe is a doe that has given birth to a kid or fetus at less than 141 days of gestation. The 04 code is used for an abnormal kidding.

**17.6** Record all pertinent data on a field data sheet. Functional codes should be listed in order of importance. Descriptive traits are prefaced with D on the worksheet.

**17.7** Functional miscellaneous codes only will be published in the Performance Volumes, ADGA Genetics web site, and approved media.

**18.0** **REPORTS and RECORDS**

**18.1** Completed appraisal reports on all animals evaluated shall be sent to the herdowner and Performance Programs Manager within 1 business day of the session.

**18.2** Reports of any irregularities concerned with appraisal found during herd visits should be included in reporting.

**18.3** Retention of records:

- A. Field Sheets – until December 31<sup>st</sup> of the year of appraisal as verified received by the ADGA office.
- B. Photos – 5 years
- C. Verification Documentation – 5 years
- D. Program Evaluations – 10 years

**18.4** Appraisers will provide a photograph release form for any photographs taken for use in the Linear Appraisal Program other than those used in the High Score process.

**19.0 QUALITY CONTROL (QC) AND QUALITY ASSURANCE (QA)**

Purpose - To ensure the program and staff have performance monitored and feedback provided, the ADGA Performance Programs Manager or an individual designated by the ADGA Association Manager or ADGA Board of Directors, will conduct a self-audit of selected areas of ADGA Linear Appraiser program performance, at both the field and office levels, on an annual basis. In particular, they will inspect those areas for which non-conformities may have been identified on a repetitive basis, to determine whether plans for meeting performance requirements are effective. Results will be the subject of discussion between the ADGA Performance Programs Manager and the ADGA Linear Appraisal Committee to identify those issues that require improved performance.

**21.0 REFERENCES**

Dairy Goat Registry Guidebook, Current Year - Linear Appraisal System, June 2002

APPENDIX A. MISCELLANEOUS CODES

REMARKS		DEFECTS		DEFECTS	
A. Status		General Appearance (cont'd)			
01	Dry		C. Back and Rump		Miscellaneous
02	Stale	40	Low front end	77	Total blindness -DQ**
03	Springing	41	Weak chine	78	Naval hernia – DQ**
04	Atypical Lactation	42	Weak loin	79	Abnormal testicles – DQ**
	B. Condition	43	Roached back	80	Overmature for age
05	Not in Condition	44	High dorsal process (>6 weeks fresh)	81	Overly refined bone
06	Extremely Under Conditioned	45	Thurls too low	82	Over Height Nigerian
07	Extremely Over Conditioned	46	Asymmetrical rump	83	Under Minimum height
08	Enlarged joints				
09	Extremely restricted motion		D. Head		
	DEFECTS	73	Crooked Face – DQ** (only on bucks)		
	General Appearance	74	Weak Jaw		
	A. Feet and Legs	75	Overshot Jaw		
10	Spread Toes	76	Undershot Jaw		
11	Shallow heels				
12	Front feet turn out		E. Breed Characteristics		
13	Turned-over feet	70	Nose incorrect for breed		
14	Weak pasterns	71	Color/markings incorrect for breed		
15	Bowed front legs	72	Ears incorrect for breed		
16	Crooked front legs	82	Over-height maximum for breed – DQ**		
17	Front legs turn out	83	Under-height minimum for breed		
18	Straight stifle				
19	Bowed rear legs		Mammary System		
20	Hocks turn in		A. Udder Support	99	Excluded from Sire Eval
21	Abnormal foot growth	50	Udder tilted		
22	Bowed pasterns	51	Udder twisted		
23	Front legs too far forward				
			B. Balance, Symmetry & Quality		
	B. Front End Assembly	52	Udder lacking size		
30	Out at elbow	53	Undesirable udder texture		
31	Open shoulder	54	Unbalanced udder		
32	Winged shoulder	55	Blind udder half**		
33	Too prominent - point of shoulder	67	Congested udder		
34	Weak/narrow shoulder assembly	68	Blemished udder (injury, trauma, ailment)		
35	Shallow chest floor				
36	Tilted chest floor		C. Teats		
		56	Teats too short		
		57	Teats too long		
		58	Teats lack delineation		
		59	Abnormal teat placement		
		60	Abnormal teat shape		
		61	Extra teats - DQ**		
		62	Teats point out		
		63	Blind teat - DQ**		
		64	Double Teat - DQ**		
		65	Double Orifice - DQ** (only on bucks)		
		66	Leaking or misplaced orifice		

\*\*Category and/or Final Scores may be affected if any of these codes are noted on a particular animal.



**LINEAR SCALE - STATURE**

Standard Inches	Miniature Inches	Linear Score
≤ 26"	17"	5
27"	18"	10
28"	19"	15
29"	20"	20
30"	21"	25
31"	22"	30
32"	23"	35
33"	24"	40
34"	25"	45

**LINEAR SCALE – RUMP WIDTH**

Standard Inches	Miniature Inches	Linear Score
≤ 5"	4.5"	5
5.5"	4.75"	10
6"	5"	15
6.5"	5.25"	20
7"	5.5"	25
7.5"	5.75"	30
8"	6"	35
8.5"	6.25"	40
9"	6.5"	45

**LINEAR SCALE – UDDER DEPTH**

Standard Inches	Miniature Inches	Linear Score
≤ -2"	-1"	5
-1"	-½"	10
0"	0"	15
1"	½"	20
2"	1"	25
3"	1½"	30
4"	2"	35
5"	2½"	40
6"	3"	45
7"	3½"	50

**LINEAR SCALE – MEDIAL**

Standard Inches	Miniature Inches	Linear Score
-1"	-½"	5
0"	0"	15
1"	½"	25
2"	1"	35
3"	1½"	45

**LINEAR SCALE – TEAT DIAMETER**

A very narrow teat, ½" (standard) ¼" (miniature) or less in diameter, is assigned 5 or less points; a teat that is intermediate in diameter 1½" (standard) ¾" (miniature) is assigned 25 points; and a teat that is very wide 2½" (standard) 1¼" (miniature) or more in diameter is assigned 45 or more points. A difference of ½" (standard) ¼" (miniature) in teat diameter, plus or minus, results in a difference of 10 points.

**LINEAR SCALE – TEAT LENGTH**

Standard Inches	Miniature Inches	Linear Score
5.0"	2.5"	50
4.5"	2.25"	45
4.0"	2.0"	40
3.5"	1.75"	35
3.0"	1.5"	30
2.5"	1.25"	25
2.0"	1.0"	20
1.5"	0.75"	15
1.0"	0.5"	10
0.5"	0.25	5

**Appendix B. ADGA HIGH SCORE VERIFICATION FORM**

NAME:	
DATE:	
ADGA ID:	

**Required Photos:**

- Side View (either side)   
  Front End   
  Top  
 Oblique   
  Rear View with Milk   
  Rear View Milked Out

Reg. ID	# Lactations	Fresh Date	Hours in Milk	GA	DS	BC	MA	FS	Projected Score

**Comments/Extenuating Circumstances**

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**Appraiser Signature:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

*Send with Photos to Performance Programs Manager along with LA worksheet for the herd. There is no need for a herd owner signature.*

**Office Use:**

**Results of Verification:**

- Verified & Certified, Official  
 Score: \_\_\_\_\_  Verified Only, Official Score: 93E

**2<sup>nd</sup> Appraiser**

**Signature:** \_\_\_\_\_ **DATE:** \_

**3<sup>rd</sup> Appraiser**

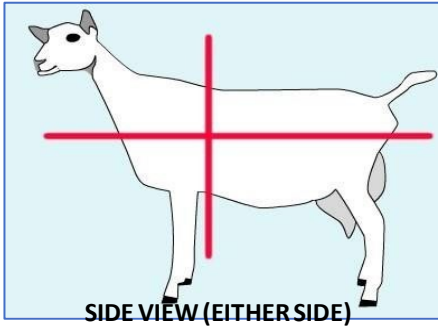
**Signature:** \_\_\_\_\_ **DATE:** \_

**Performance Programs Manager Signature:**

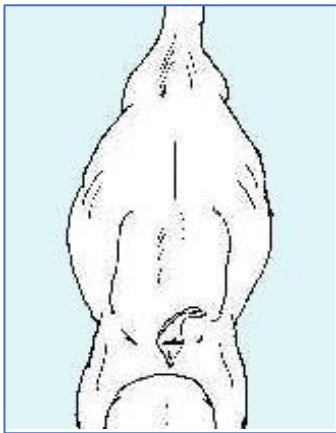
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**DATE:** \_\_\_\_\_

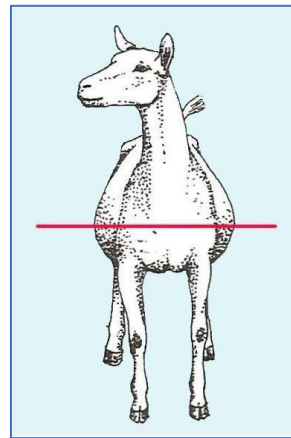
**VERIFICATION PHOTOTYPES – Appendix B  
(continued)**



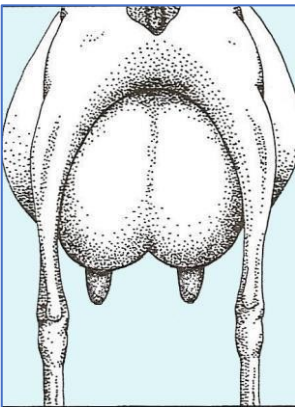
**SIDE VIEW (EITHER SIDE)**



**TOP VIEW**



**FRONT VIEW**



**UDDER FULL & UDDER MILKED OUT**



# American Dairy Goat Association

ADGA registry, based on original import records, is your warranty of good breeding and worldwide acceptance.

PO Box 865, Spindale NC 28160

(828) 286-3801 | Fax (828) 287-0476 | support@adga.org | ADGA.org

## ADGA SCORECARD

The goal of the Unified Scorecard is to aid in the selection of the type of dairy goat that can function efficiently over a long productive lifetime.

	POINTS	Senior Doe	Junior Doe	Buck
<b>A. GENERAL APPEARANCE</b> An attractive framework with femininity (masculinity in bucks), strength, upstandingness, length, and smoothness of blending throughout that create an impressive style and graceful walk.		35	55	55
<b>Head &amp; Breed Characteristics</b> - clean-cut and balanced in length, width, and depth; broad muzzle with full nostrils; well-sculpted, alert eyes; strong jaw with angular lean junction to throat; appropriate size, color, ears, and nose to meet breed standard.		5	10	8
<b>Front End Assembly</b> - prominent withers arched to point of shoulder with shoulder blade, point of shoulder, and point of elbow set tightly and smoothly against the chest wall both while at rest and in motion; deep and wide into chest floor with moderate strength of brisket.		5	8	10
<b>Back</b> - strong and straight with well-defined vertebrae throughout; taller at withers than hips, and level chine with full crops into a straight, wide loin; wide hips smoothly set and level with chine and loin		5	7	6
<b>Rump</b> - strong, uniformly wide and nearly level from hips to pinbones and thurl to thurl; thurls set two-thirds of the distance from hips to pinbones; well defined and wide pinbones set slightly lower than the hips; tailhead slightly above and smoothly set between pinbones; tail symmetrical to body and free from coarseness; vulva normal in size and shape in females (normal sheath and testes in males).		5	7	6
<b>Legs, Pasterns &amp; Feet</b> - bone flat and strong throughout leading to smooth, free motion; front legs with clean knees, straight, wide apart and squarely placed; rear legs wide apart and straight from the rear and well angulate in side profile through the stifle to cleanly molded hocks, nearly perpendicular from hock to strong, yet flexible pastern of medium length; strong feet with tight toes, pointed directly forward; deep heels with sole nearly uniform in depth from toe to heel.		15	23	25
<b>B. DAIRY STRENGTH</b> Long bone pattern throughout. Openness and angularity with strong yet refined and clean bone structure, showing enough substance, but with freedom from coarseness and with evidence of milking ability giving due regard to stage of lactation (of breeding season in bucks) <b>Neck</b> - long, lean, and blending smoothly into the shoulders; clean-cut throat and brisket with adequate width of chest floor to support maintenance of body functions. <b>Withers</b> - prominent and wedge-shaped with the dorsal process arising slightly above the shoulder blades. <b>Ribs</b> - flat, flinty, wide apart, and long; lower rear ribs should angle to flank. <b>Flank</b> - deep, yet arched and free of excess tissue. <b>Thighs</b> - in side profile, moderately incurving from pinbone to stifle; from the rear, clean and wide apart, highly arched and out-curving into the escutcheon to provide ample room for the udder and its attachment. <b>Skin</b> - thin, loose, and pliable with soft, lustrous hair.		20	30	30
<b>C. BODY CAPACITY</b> Relatively large in proportion to size, age, and period of lactation of animal (of breeding season for bucks), providing ample capacity, strength, and vigor.		10	15	15
<b>Chest</b> - deep and wide, yet clean-cut, with well sprung foreribs, full in crops and at point of elbow.		4	7	7
<b>Barrel</b> - strongly supported, long, deep, and wide; depth and spring of rib tending to increase into a deep yet refined flank		6	8	8
<b>D. MAMMARY SYSTEM</b> Strongly attached, elastic, well-balanced with adequate capacity, quality, ease of milking, and indicating heavy milk production over a long period of usefulness.		35		
<b>Udder Support</b> - strong medial suspensory ligament that clearly defines the udder halves, contributes to desirable shape and capacity, and holds the entire udder snugly to the body and well above the hocks. Fore, rear, and lateral attachments must be strong and smooth.		13		
<b>Fore Udder</b> - wide and full to the side and extending moderately forward without excess non-lactating tissue and indicating capacity, desirable shape, and productivity.		5		
<b>Rear Udder</b> - capacious, high, wide, and arched in to the escutcheon; uniformly wide and deep to the floor; moderately curved in side profile without protruding beyond the vulva.		7		
<b>Balanced, Symmetry &amp; Quality</b> - in side profile, one-third of the capacity visible in front of the leg, one-third under the leg, and one-third behind the leg; well-rounded with soft, pliable, and elastic texture that is well collapsed after milking, free of scar tissue, with halves evenly balanced.		6		
<b>Teats</b> - uniform size and of medium length and diameter in proportion to capacity of udder, cylindrical in shape, pointed nearly straight down or slightly forward, and situated two-thirds of the distance from the medial suspensory ligament on the floor of each udder-half to the side, indicating ease of milking.		4		
<b>TOTALS</b>		<b>100</b>	<b>100</b>	<b>100</b>

## **Appendix D. LINEAR APPRAISAL EDUCATION PROGRAM**

**Definition:** A Linear Appraisal Education Program is a training program for breeders, youth, and possible future linear appraisers taught by an active linear appraiser or other person trained and authorized by ADGA to do so. The program consists of either one-half day or one full day of instruction.

Possible Content:

1. Definition and discussion of the purpose of the linear appraisal program.
2. Discussion of eligibility, guidelines, and rules of the program.
3. Description and discussion of the linear traits and how they are measured (using illustrations, photographs and applicable data collection sections of the Linear Appraisal Standard Operating Procedures [SOP]).
4. Description and discussion of the structural categories (using illustrations, photographs and applicable data collection sections of the Linear Appraisal Standard Operating Procedures [SOP]).
5. Explanation of the procedure used to obtain the major category scores and the final score, using the Scoring Range Definitions and miscellaneous codes and remarks.
6. Discussion of costs and the scheduling options (Individual, hosting, sire groups, special session?)
7. How should a herd owner prepare for a linear appraisal session? What is expected of the appraiser?
8. Discussion of linear appraisal information as it appears on a performance pedigree and on the genetics website. Discussion of trait averages by breed and how to use performance data in a breeding program.
9. Summary and questions
10. Exercises with 4-6 live animals. Several breeds should be represented by at least 3 does in milk and 1-2 young stock to illustrate data collection procedures and range (as possible) for the linear traits and structural categories. No official scores will be assigned at a Linear Appraisal Education Program.

**How to Arrange for a Linear Appraisal Education Program:** Any person or group wishing to conduct a Linear Appraisal Education Program should first contact the ADGA Performance Programs Manager to make arrangements for the time, fees, expense and to discuss needed facilities and equipment. If an instructor is available, the local group should secure local arrangements and set appropriate registration fees. It is strongly suggested that Linear Appraisal Education Programs be widely advertised so as many interested people as possible may attend.

## **Appendix E. MEASURING DEVICES**

**Stature:**

- Ketchum Measuring Tape
- ADGA Measuring Stick

**Rump Width:**

- Digital Calipers





