

4-H/FFA Project Animal Selection

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Show & Sale 101 Series
March 16, 2023 - Highland Modular

Tonight's Topics



Project Animal - the Basics

Lambs

Hogs

Goats

Beef

Where do I find project animals?

The Very Basics

Choose your animal based on:

- Breed (Market Demand)
- Size (Finish Wt)
- Quality (Grade)

→ You are raising your animal to enter the meat industry – what do you want on your dinner plate?



Other Factors in Selection

You:

- Space/Environment
- Comfortability
- Financial Burden/Budget (\$\$)

The Animal:

- Sex –castrated male or female
- Purebred vs. Crossbred
- End Goal – Meat, Replacement, etc.



Market Animal = Meat Animal



Market & Feeder Beef:

- No dairy breeds or crosses with dairy
 - For our program
- Angus, Hereford, Charolais, Beefmaster, etc. & Crossbred beef



• Sheep:

- No hair breeds
- Suffolk, Southdown, Hampshire & Dorset crosses

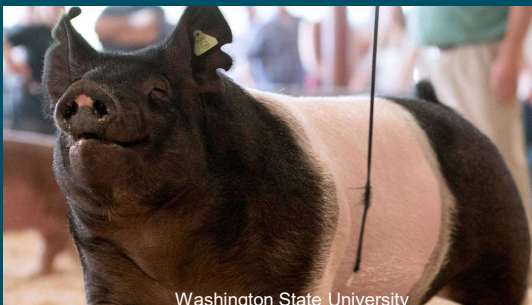


Market Animal = Meat Animal



Pork

- Yorkshire, Chester White, Duroc, Hampshire & crosses



Goat

- Boer* (*primary*)
 - Crosses with Black Bengal, Kalahari Red, Kiko, etc.



Market Lamb Industry Goals



- Age at market: 6 – 10 months
- Live weight: 110-150 lbs
 - Hot carcass weight: 55-75 lbs
- Fat thickness: .15-.3 inches
- Ribeye: 2.5 square inches minimum
- Quality grade: Choice minus or higher
- Yield grade: 3.0 or less.
- ADG (national average) 0.68 lbs/day



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REAR VIEW



Correct



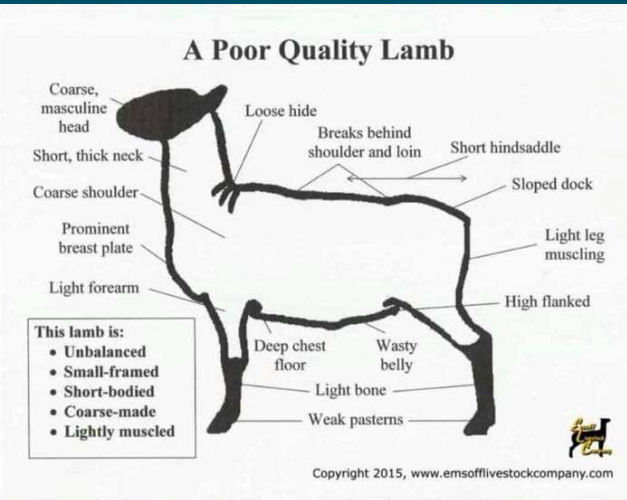
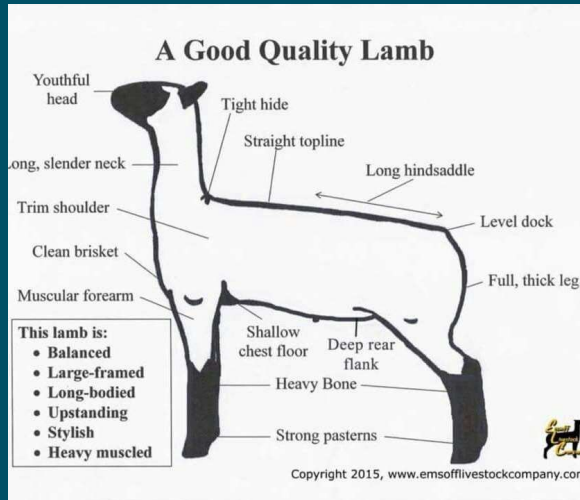
Bow-legged



Cow-hocked



The Good vs. The Not-So-Good



Example – Weight Gain

- Purchase/bring in lamb June 30th weighing 60lb
- Have 60 days until show time
- ADG .6 lb/day = 36lb gained
- Lamb will weigh 96lb on show day (if in excellent health)
- Feed Conversion for market lambs = 6lb feed per 1lb gained
- 60days x 6lb/day = 360lb feed needed to put 36 lb on lamb

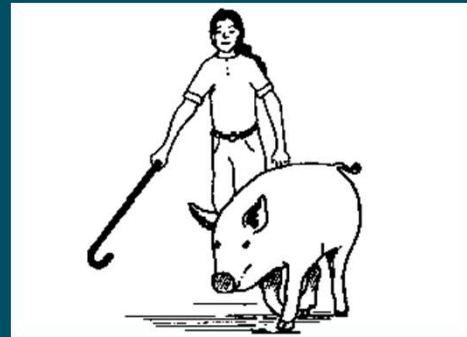
MORE MATH

- 15 more days on feed:
- 9 more pounds gained
 - Additional 50lb of feed
 - ~\$20
 - If lamb brings \$8/lb = Additional \$72

Market Pork Industry Goals

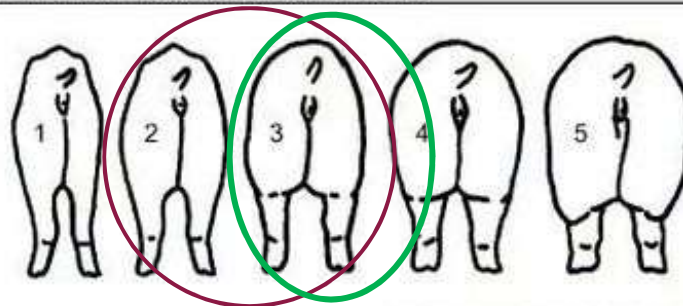


- Age at market: 156-164 days
- Live weight: 260-270 lb
 - Hot carcass weight: 195 lbs (75%)
- Back fat: .6-.8 inches
- Loin eye: 6.5-7.1 square inches
- USDA Grade: #1
- Feed efficiency: 2.4

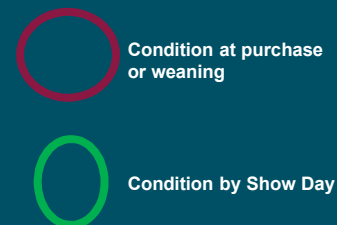


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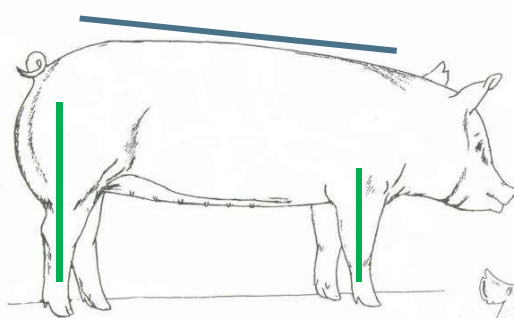
Figure 2. Body condition scores of sows.



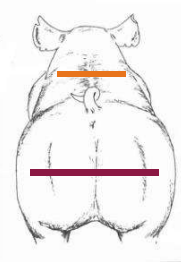
Score	Condition	Detection of ribs, backbone, "H" bones, and "pin" bones
1	Emaciated	Obvious
2	Thin	Easily detected with pressure
3	Ideal	Barely felt with firm pressure
4	Fat	None
5	Overly fat	None



Ideal Market Hog



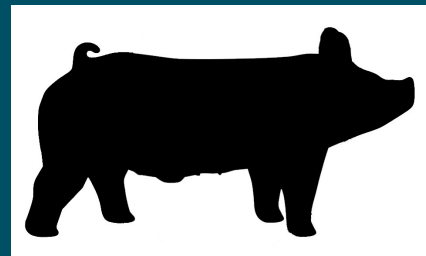
Weight	275 lbs
Back fat	.8"
LEA	6.0 +
Muscle	2+
USDA Grade	#1



Example, Weight Gain

Sale Day Goal: 280lb Hog

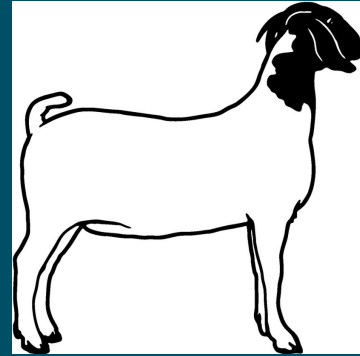
- Pig will be on feed for 100 days (start May 21)
- Should gain 2lb per day
- 280lb (finish wt) – 200lb (wt gain) = 80lb; pig should weigh 80lb at purchase.
- Feed Conversion for hogs = 3.5lb feed per 1lb gain (to gain 2lb/day, must feed 7lb /day)
 - 100 days x 7lb feed/day = 700lb feed needed to gain ~200lb



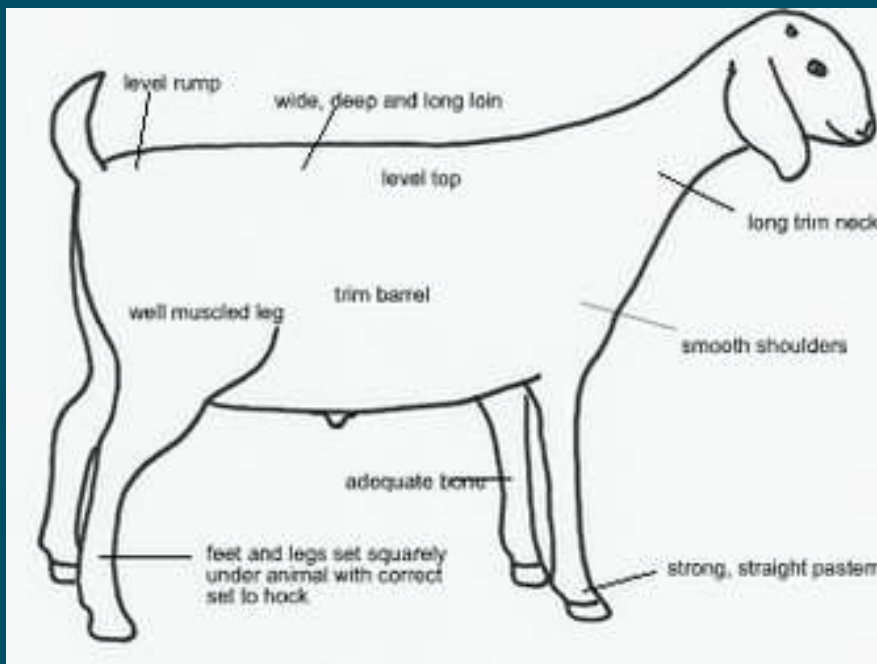
Goat Industry Market Goals



- Age at market: 7-10 months
- Live weight: 60-80lb
 - Hot carcass weight: 44-52% of live wt (28-40lb)
- Quality grade at Market: #1*
- #2
- ADG = 0.35-0.6 lbs/day



Boergoats.com; ohio state univ; VDACS; montana.edu



Body Condition Terms

Goat Soundness



Evaluating Soundness/Structure – Levelness of Top –



Evaluating Style

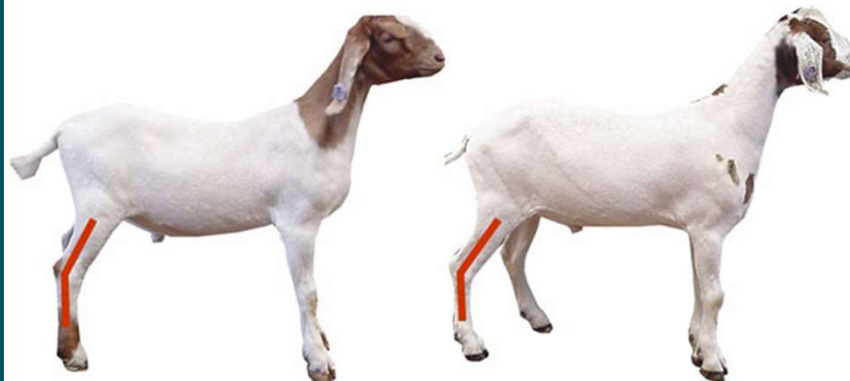
Poor Style!!
(Short, Thick Neck)



Nice Style
(Long, Clean Neck)

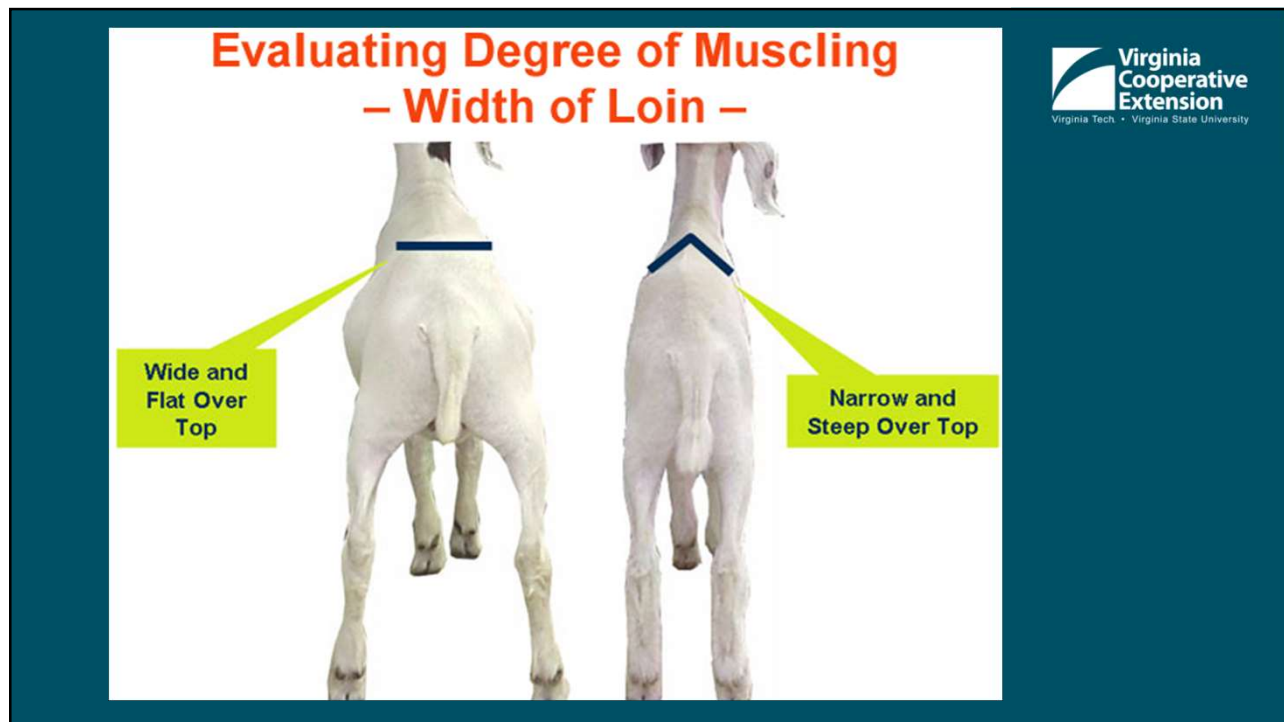


Evaluating Soundness/Structure – Hocks –



Nice Set to Hocks

Too Much Set to Hocks



Example, Weight Gain



Goat is 40lb on June 30

- ADG is .35-.6lb/day
- 60 days until show day
- Feed per day – 2lb, plus occasional forage
 - Need 120lb of feed plus forage
- Goat may weigh 71-76lb by show day
 - $40\text{lb} + (60\text{days} \times 0.6\text{lb ADG}) = 76$

WITH 15 more days on feed (June 15th):

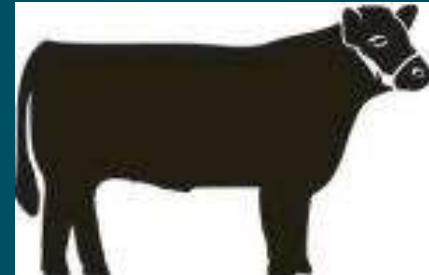
- 9 more pounds gained
- Additional 30lb of feed; cost ~\$25

→ If goat brings \$10/lb = Additional \$90 income

Market Beef Industry Goals



- Age at market: 14 – 18 months
- Live weight: 1250-1400 lbs
- Hot carcass weight: 700-900 lbs
- Fat thickness: .5 or less
- Ribeye: 12.5-13.9 square inches
- Quality grade: Choice or higher

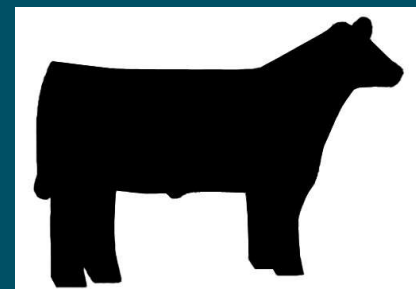


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Feeder Beef Industry Goals

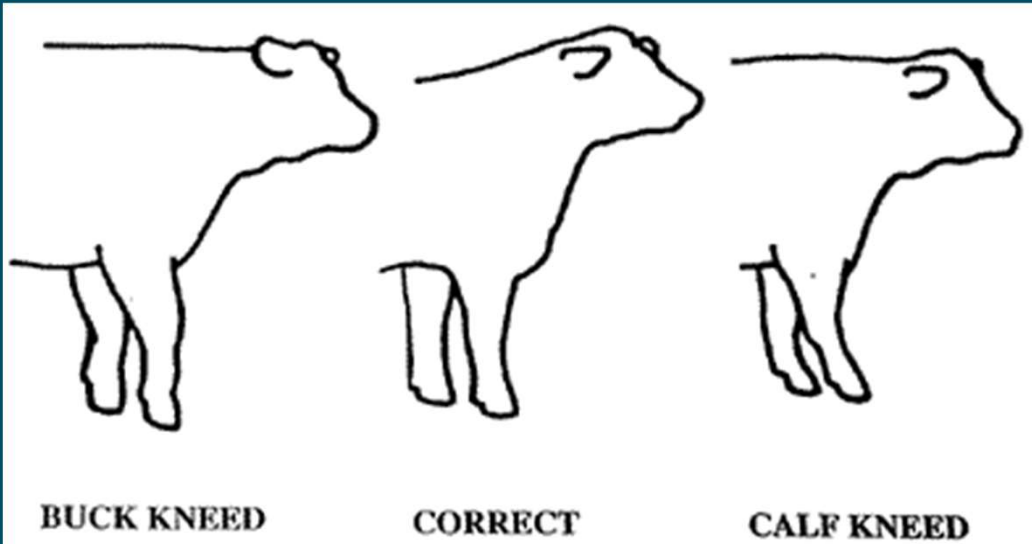


- Weaning at 350-550lb
- Feed to 600-800lb
 - “feedlot ready” – our feeder program
- Feedlots or farmers finish the animal to approx. 1250lb (market beef)

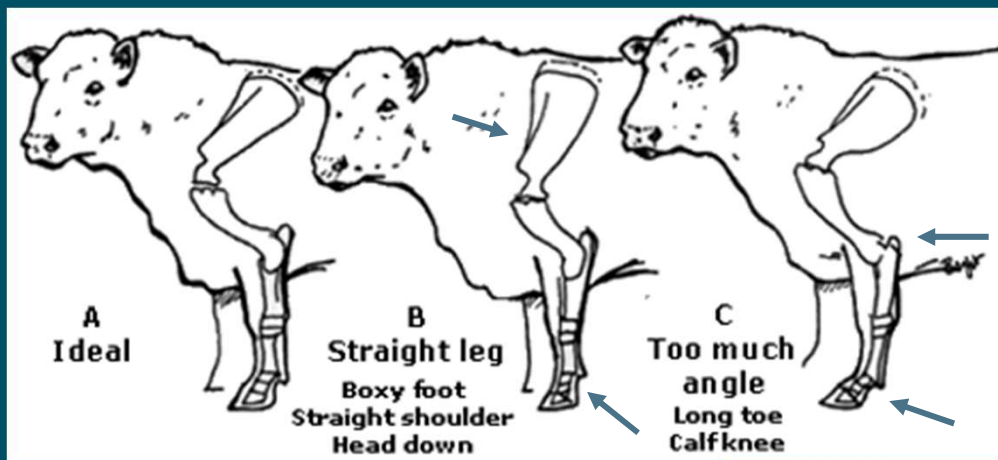


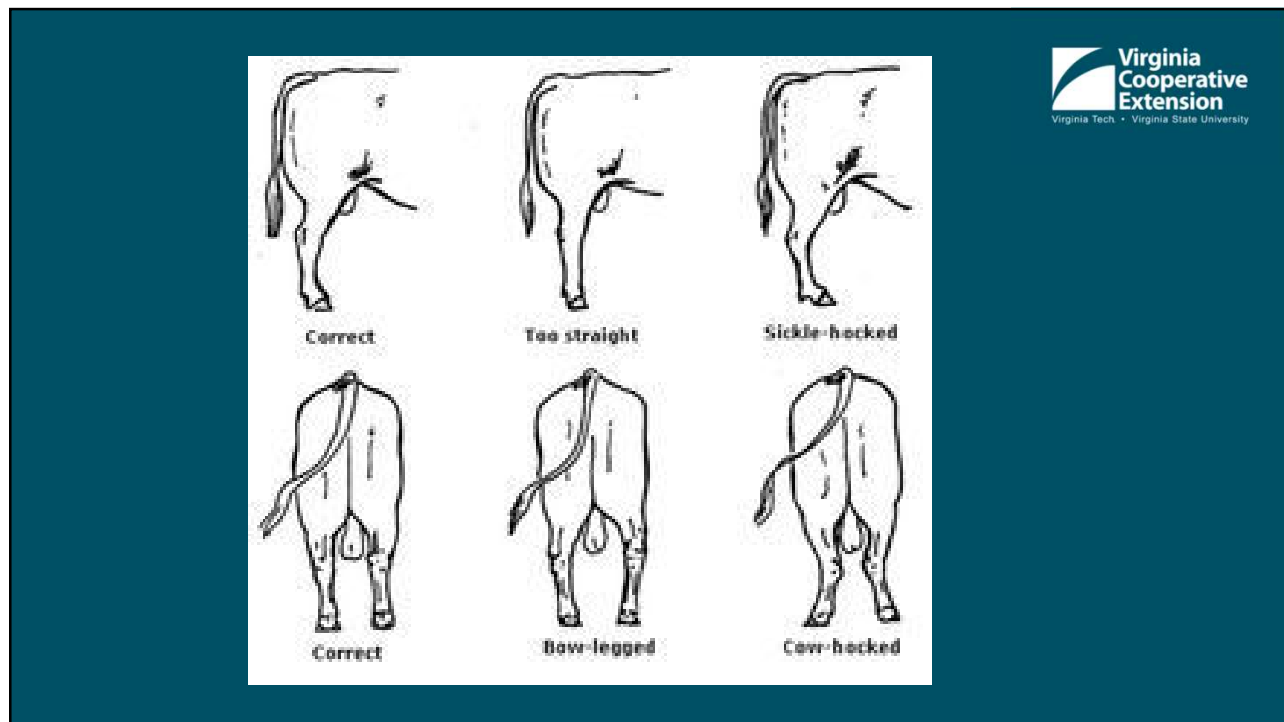
Feeder cattle are not ready for the meat market; they must be performing adequately (gain, finish) to enter the market within 4-6 months

Feet and Legs are important



Shoulder, Claw & Foot Alignment





Example, Weight Gain – Feeder

- Feeder steer weighing 400lb on June 1, weaned* 30 days
 - *non weaned cattle will lose weight before it gains*
- Feed Conversion = ~ 6lb feed for every 1lb gain
- Have 90 days until show day
- Can gain up to 3lb/day (ex. 15-18lb feed ration to gain 3lb/day)
 - Protein/Energy Mix + forage
- $90 \times 18 =$ Need 1680lb feed
- Animal could weigh ~ 670lb (400+270) on show day

With 15 more days on feed:

- 45+ pounds gained
- Additional 270lb of feed
- If steer brings \$2.75/lb = Additional \$123

No weight gain calculations account for shrink loss from travel or sickness in this presentation

Where do I find project animals?



- Your farm
- Neighbor/Relative's farm
- "Show Stock" breeder
- Combination

Need help? We have a regional database! →



Area Breeders with 4-H Project Animals for Sale

Original List created by **Orange County 4-H**, May 2021 – Bath/Highland growers added January 2022.

**Note: Virginia Cooperative Extension does not advocate for any one specific breeder or promote one breeder over another, nor do we guarantee a satisfactory project when purchased from the sources listed. This is a courtesy document compiled for families to provide starter information about breeders if they wish to make contact.*

Breeders highlighted are in/around the Bath/Highland region.

Sheep Breeders

Farm Name	Contact Name Location	Phone and Email	Website
Sponaugle Livestock	Matt & Kate Sponaugle - McDowell VA	(540) 383-7983	https://www.facebook.com/Sponaugle-Livestock-1408229292774845
Wilfong Dorsets	Ben Wilfong - Warm Springs, VA	(304) 268-2295	www.wilfongdorsets.com - https://www.facebook.com/wilfongdorsets/
NextGen Show Wethers	Jonathan Lippert Burr Hill, VA	(703) 595-5405 fippertfamilyfarm@yahoo.com	https://www.facebook.com/NextGen-Show-Wethers-1473288256237071
Sadie's Club Lambs	Sadie Wentz Rapidan, VA	(540) 212-3079 showsheep12@gmail.com	
JC Lambs	Jacob and Julie Capozella Louisa, VA	(540) 360-8486 - (540) 733-3080	https://www.facebook.com/HCFarms

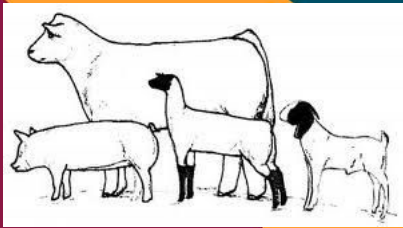
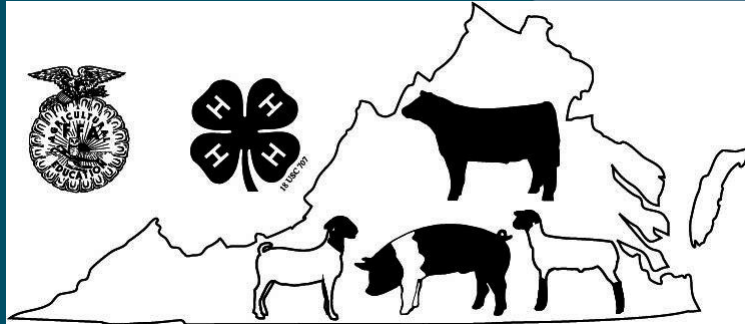
Resources



- **University of Idaho** - <https://www.uidaho.edu/-/media/UIDaho-Responsive/Files/Extension/4-H/Animal-Science-Lesson-Plans/Selection-Project-Animal-Selection-L2-CKinder-ALL.pdf?la=en&hash=42ED3C16B59607053F27F0C754948DAADC5042DA>
- **University of Florida** - <https://edis.ifas.ufl.edu/publication/4H407>
- Beefmagazine.com
- **Colorado State University** - Feeding Market Beef
- **Beef Weight Calculator** - <https://extension.usu.edu/4H-Livestock-Calculator/beef-weight-calculator>
- **Michigan State University, College of Ag and Natural Resources** - https://www.canr.msu.edu/news/planning_for_your_4_h_swine_project_animal_preparations



Questions?



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