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Youth Field Day 2021

~ Schedule ~

8:20 a.m.    Check-in opens
9:00 a.m.    Welcome – Instructions – Meet your group leaders
9:10 a.m.    Groups begin class rotations (30 minutes each)

“Help! The Calf is Stuck!”
Laura Bennett, Multi-County Livestock Agent I – Pasco, Sumter, and Hernando Counties
Taylor Davis, Livestock and Natural Resources Agent – Highlands County

“Calf 911 - Caring for newborn calves, dobies, and addressing health problems”
Colleen Larson, Regional Dairy Agent – Okeechobee County
Sonja Crawford, Livestock/4-H Agent – Hendry County

“Stick’ it out in the Cowpens”
Lindsey Wiggins, Multi-County Livestock Agent – Hendry County
Lauren Butler, Livestock Agent & CED – Okeechobee County

“So You Wanna Start a Business”
Chris Prevatt, Beef Cattle and Forage Economics, State Specialized Agent II – RCREC
J. K. Yarborough, Ag & Natural Resources Agent – Orange County

“Blue Birds on the Ranch”
Dr. Hance Ellington, Rangeland Wildlife Ecology, Assistant Professor - RCREC
Bethany Wight, Rangeland Wildlife Ecology, Biological Scientist – RCREC

12:10 p.m.    Return to the Grazinglands Education Building to pick up your lunch
12:30 p.m.    Field Day Ends
Thank you to our Sponsors!

Flatwoods Cattle
Roman III Ranch
Hardee County Farm Bureau
DeSoto – Charlotte County Farm Bureau
Nutrien Ag Solutions
Merck Animal Health
Hardee Ranch Supply, Inc.
Dakin Dairy Farms
Farm Credit of Florida

A very special “Thank You” to everyone who has had a part in today’s program! We are very grateful for your time, assistance, support, and donations!
Youth Field Day 2021

~ Staff ~

Group Leaders (RCREC Staff & Students)

**Ona White Angus** - Leandro Vieira, Ph.D. Student
                   Kamii’ya Cargle, Intern

**Brahman** -     Liz Palmer, Ph.D. Student
                   Molly Jones, Intern

**Angus** -       Tom Fussell, Agricultural Assistant III/Assistant Herdsman
                   Connie Blocker, Intern

**Brangus** -     Caetano Sales, M.S. Student
                   Hannah Fox, Intern

**Braford** -     David Magana, OPS Farm Assistant
                   Lauren Ahrens, Intern

RCREC Staff and Students Assisting

Austin Bateman, Randy Crawfis, Lauria Gause, Dennis Kalich, Jacob Miller, Terry Neels, Joseph Noel, Kim Parks, David Womble, Hiran Silva, Marta Kohmann, Joao Sanchez

Youth Field Day Committee

**UF/IFAS Range Cattle REC Members**

Andrea Dunlap, Communications Specialist
Dr. Hance Ellington, Rangeland Wildlife Ecology, Assistant Professor
Chris Prevatt, Beef Cattle & Forage Economist, State Specialize Agent II
Dr. Brent Sellers, Weed Science, Professor & Center Director
Dr. Joao Vendramini, Agronomy, Professor
Bethany Wright, Rangeland Wildlife Ecology, Biological Scientist
Julie Warren, Animal Science, Biological Scientist

South Florida Beef Forage Program Members

Lauren Butler, Okeechobee Co. Ext., Livestock Agent & CED
Sonja Crawford, Hendry Co. Ext., Livestock & 4-H Agent
Christa Kirby, Manatee Co. Ext., Livestock Agent
Colleen Larson, Okeechobee Co. Ext., Regional Dairy Agent
Laura Bennett, Sumter Co. Ext., Multi-County Livestock Agent I
Taylor Davis, Highlands Co. Ext., Livestock and Natural Resources Agent
Lindsey Wiggins, Hendry Co. Ext., Multi-County Livestock Agent
UF/IFAS Range Cattle Research and Education Center - Quick Facts

- **This Station was established in 1941** for two purposes: 1) to learn how to produce quality forage on the sandy cut-over pinelands; 2) to investigate breeding, feeding and management of beef cattle.

- Much of the proposed land had been sold during the 1915 boom in 10, 20 and 40-acre tracts to people throughout the U.S.A. In the late 1920s when the land boom broke most of the Station area was returned to the county because of unpaid taxes. Hardee Farms and Ranch Inc., Wauchula, redeemed the tax certificates and later sold a large part of the land to the Station Trustees at $2.25 per acre. Funds for the **purchase of this land** were obtained through private donation and grants from the Hardee Board of County Commissioners.

- The center has been its current size (**2,840 acres**) since 1960.

- **Modern conveniences**: Electric power was provided in 1946, an all-weather road in 1952, and phone service in 1954.

- **The purpose of the center** is to conduct research and provide information that will solve problems related to improving profitability of beef cattle and forage operations in Florida.

- The center has **6 faculty members** doing work in soil and water science, animal science (beef cattle), forages, weed science, economics, and wildlife ecology & conservation.

- The center has **20 support personnel**: office manager, research coordinator/farm manager, herdsman, biological scientists, communications specialist, custodian, ag. technicians, auto/equipment mechanic, field work assistant, maintenance and a secretary.

- Currently there are **4 Ph.D. students, 3 M.S. students, and 2 exchange visitor research scholars and 5 interns** at the center. Students come to the center to do research toward the degree they are pursuing. We have hosted them from Brazil, Honduras, India, Africa, China, Japan, Turkey, Russia, and North America.

- Currently the Range Cattle REC has about **600 mature cows, 100 yearling heifers, and 35 bulls**. **Breeds** include Ona White Angus, Angus, Brangus, Braford, Brahma, and various crosses.

**Contact us:**
Phone - 863-735-1314
Fax - 863-735-1930
E-mail - ona@ifas.ufl.edu
Website - [http://rcrec-ona.ifas.ufl.edu](http://rcrec-ona.ifas.ufl.edu)
Range Cattle REC Cattle Management

Herdsmen, Austin Bateman

**January**
1. Cow breeding season begins (1st week)
2. Early wean calves from 1st calf heifers (1st week)

**April**
1. Remove bulls following 90-day breeding season:
   a. Vaccinate bulls with Cattlemaster 4 + VL 5, Ultrabac 8, and worm
2. Work all cows and calves;
   a. Weigh and Body Condition Score (BCS) Cows
   b. Weigh calves
   c. Worm cows
   d. Vaccinate calves with Bovi-Shield Gold 5, Ultrabac 8, One-Shot pasturella, worm
3. Pregnancy check yearling heifers via ultrasound;
   a. Vaccinate heifers with Cattlemaster 4 + VL 5, and worm

**June**
1. Pregnancy check cows and Brucella test
2. (greater than or equal to 30 days from prior) Vaccinate calves with Bovi-Shield Gold 5 and Ultrabac 8, One-Shot pasturella, and worm

**July**
1. (greater than or equal to 30 days from prior) Wean calves and ship

**August**
1. Work replacement heifers before going onto fall studies;
   a. Brand, Bangs vaccinate, worm

**September**
1. Work and sort mature cowherds prior to winter feeding studies;
   a. Vaccinate with Cattlemaster 4 + VL5, Ultrabac 8, and worm

**October**
1. Work bulls;
   a. BSE exam, Brucella test, trich test
   b. Vaccinate with Bovi-Shield FP4 + VL5, Ulrabac 8, and worm

**December**
1. Begin heifer breeding as per schedule
~ Web Resources ~

Beef Quality Assurance (BQA)- National Manual

Electronic Data Information Source (EDIS) –
EDIS is the Electronic Data Information Source of UF/IFAS Extension, a collection of information on topics relevant to you: profitable and sustainable agriculture, our environment and natural resources, 4-H and other youth programs, Florida-friendly landscapes, communities that are vibrant and prosperous, and economic well-being and life quality for individuals and families.
http://edis.ifas.ufl.edu/

Florida Automated Weather Network (FAWN) -
Weather data is collected every 15 minutes at 43 sites located across Florida. Find a FAWN site near you... http://fawn.ifas.ufl.edu/

South Florida Beef Forage Program (SFBFP)-
The South Florida Beef-Forage Program is composed of extension faculty representing Charlotte, Citrus, Collier, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Lee, Manatee, Okeechobee, Pasco, Polk, Sarasota and Sumter counties and the Seminole Tribe of Florida, in addition to research faculty and extension specialists located at various research centers and departments at the University of Florida. A major goal of this program is to coordinate extension and research activities for enhanced forage and cattle production in Central and South Florida.
https://sfbfp.ifas.ufl.edu/

UF IFAS Range Cattle REC –
Learn about upcoming events, see program and contact information for faculty members, and view media resources in the virtual classroom.
http://rcrec-ona.ifas.ufl.edu/

Take a virtual tour of the Center!
https://youtu.be/Y3bWDGQKGbI

UF IFAS Extension – Solutions for your life –
Each Florida County has an extension office. Do you know about yours? Follow this link to locate your local office and find out about the services they offer. Here you will also learn about the Research Centers and Demonstration Sites in Florida.
http://solutionsforyourlife.ufl.edu/map/

Want to learn more about joining the Gator Nation? –
Degrees, admissions, tuition, aid, how to apply, and request information, visit:
https://ufonline.ufl.edu/admissions/admissions-team/
**Assisting Difficult Calving**

Floron C. Faries, Jr.*

Dystocia is the scientific word used to describe a difficult delivery during the birthing process. In cattle, such difficulty occurs most frequently in first-calf heifers. On the average, 50 percent of dystocias in cattle occur in first-calf heifers and 25 percent occur in second-calf heifers. The remaining dystocias are distributed throughout the rest of the calving cow herd.

Calving difficulty is frequently caused by disproportionate size—the calf is too big for the birth canal. The weight of the calf at birth is the most important factor influencing calving ease; other factors are the calf’s breed, sex and conformation.

**Parturition**

The entry of a fetus into the birth canal during parturition (birthing process, labor) is described by three terms. These are presentation, position and posture. Presentation refers to whether the fetus is coming forwards, backwards or sideways. Position refers to whether the fetus is right side up or upside down. Posture refers to whether the head and neck are in proper position or if the feet and legs are in the proper relationship to the body for delivery. Improper presentation, position or posture can result in dystocia.

Normal parturition is a continuous process, but is often divided into three stages for purposes of description. Stage 1 is cervical dilation. Stage 2 is expulsion of the fetus. Stage 3 involves expulsion of the fetal membranes. The time sequences involved with these stages can be helpful in determining if dystocia is occurring.

Stage 1 labor begins with initial contraction of the uterus and ends when the cervix is dilated and fetal parts (feet, nose) enter the birth canal. Visible signs of labor usually are absent during this stage. The heifer or cow will be restless and have a tendency to lie down and get up frequently. Stage 1 lasts from 2 to 6 hours, sometimes longer in heifers.

Stage 2 labor begins when fetal parts enter the birth canal and stimulate the abdominal press. The first water bag (chorioallantoic sac) usually ruptures early in stage 2. The second water bag (amniotic sac) is often forced through the vulva after the cow has been in labor for a short time. Delivery should be completed within 2 hours after the appearance of the amniotic sac at the vulva. Stage 2 labor may last from 30 minutes to 4 hours.

Stage 3 labor, or expulsion of the fetal membranes, usually is completed within 8 to 12 hours following delivery of the fetus.

---

*Former Professor and Extension Program Leader for Veterinary Medicine Emeritus*
**Assisting parturition**

Assistance should be provided if the cow or heifer has been in stage 1 labor for 6 hours or more and the abdominal press has not begun. If the female is in stage 2 labor with signs of abdominal pressing for 2 hours and no fetal parts have been presented, she should be examined. If a cow is observed with a water sac presented through the vulva and has not delivered the fetus within 2 hours, she should be assisted.

When fetal parts protrude through the vulva to the outside, the heifer or cow should be observed at hourly intervals. If no progress is made within an hour or the nose protrudes further than the feet, she should be assisted. Assistance is not necessary if progress occurs during the hourly observations. As normal progress develops, she should calve within 4 hours.

A high percentage of cows and heifers that calve unassisted contaminate their reproductive tract. Fortunately, they are able to overcome infection and become pregnant again.

To prevent gross and potentially overwhelming contamination during assisted calving, properly restrain the heifer or cow. Restrain by using a low head tie, not a chute, to give the animal room to lie down during assisted delivery. Thoroughly cleanse the perineum or rear portions of the animal before examining the birth canal. Liberally apply mild soap and water and rinse thoroughly the area of the tail head down to an area approximately 12 inches below the vulva. The width of the scrubbed area should extend laterally to include the pin bones. The tail can be tied to the animal’s neck or elbow to keep it out of the way during assistance. The assistant’s hands and arms should be cleansed with soap, water and an antiseptic solution.

Examination through the vagina reveals the diameter of the bony pelvic canal. Cervical dilation is limited to the size of the pelvic bones, therefore, a decision as to whether or not a cesarean is necessary should be made before initiating assistance.

The delivery of the fetus is eased by the use of obstetrical chains. Cotton ropes and nylon web obstetrical straps also can be used. Chains are preferred because they can be easily cleaned and sanitized by boiling in water between calvings. Chains allow for more accurate placement of handles, which increases traction. Chains also are less restrictive to circulation. When chains are laid aside during assistance, place them in a disinfectant solution to keep them clean.

The best placement of a rope or chain on the limb of a calf is a loop above the ankle and a half-hitch below the ankle. This distributes the point of pull to reduce the potential of fracturing a fetal limb during delivery. Place the chains or other straps directly on the skin. Placing them over the second water sac covering the limbs while applying traction will impede delivery.

Adequate lubrication is essential in assisted delivery when a cow or heifer is in dystocia. Although nature has provided the calving cow with ample amounts of lubricant, the heifer or cow in dystocia often expends her natural lubricating fluids. Delivering a fetus through a relatively dry birth canal may well add unnecessary trauma to the dam.

Petroleum-based jellies or solid cooking compounds make satisfactory lubricants. A water slurry made with baby-clothes detergents (non-bleaching or non-harsh detergents) can be used as well. Apply lubricants liberally and frequently during assistance.

The calf is delivered by walking the calf out. This is accomplished by alternating the pull on each leg. Pull one leg, one at a time, with a maximum traction of 200 pounds to fully extend both legs before applying more traction to pull the calf. Pull in an upward direction. Be sure to keep the nose in position with the ankles and continue to pull upward to deliver the calf beyond its shoulders. Then pull downward, through an arc, to complete delivery of the calf. The maximum traction to apply to the calf with extended legs is 600 pounds.

If assistance is attempted using the guidelines to walk the calf out and progress is not made after working 30 minutes, obtain professional help immediately.

Fetal extractors, or calf-pullers, often are used to assist delivery of a calf. These instruments can prove to be invaluable, but they also can be danger-
ous. Excessive traction with this instrument can tear cows and even cause paralysis. Regardless of the type of calf-puller used, a quick-release mechanism is essential. Avoid using extractors without this feature. Apply no more traction with a fetal extractor than can be supplied by three strong men. If traction for delivery is applied to a standing animal, the pressure will often cause the animal to lie down. Make sure enough room is provided for the animal to lie down and for the attendants to work.

Post parturition

After the calf has been delivered, check for a heart beat by placing a hand on the lower chest just behind the front limbs. Another way to determine if the calf is alive is to gently touch the surface of the eyeball. A blinking reflex indicates life.

After delivering a live fetus, the next critical step is to provide an open airway for breathing. Use a dry paper or cloth towel to wipe the mouth of excess mucus. Stimulate respiration by placing a piece of hay or straw in the nostril to initiate a sneeze and clear the airway. Insert a finger in the calf’s rectum to initiate a respiratory response, also. Vigorous rubbing of the back of the calf also can stimulate breathing.

After the calf is breathing and relatively stable, tend to the calf’s umbilicus. Treat it with a minimum 2 percent solution of iodine. This preventive practice greatly reduces the chance of the calf developing a systemic illness later.

Also, make sure the calf drinks 1 to 2 quarts of colostrum (first-milk) from the dam within the first 6 hours of life. It is best when nursed, but if the calf is too weak, provide the colostrum by stomach tube. If the calf is small, divide the colostrum into two to three feedings during the first 6 hours.

After delivery, re-examine the birth canal of the dam. The most important consideration is to check for the presence of an additional fetus. Also examine the posterior birth canal for excessive tearing or bruising that could require a veterinarian’s observation. Allow the cow to naturally expel the placenta because it is too tightly attached at this time for manual removal. Administer intrauterine boluses or parenteral injections of antibiotics after consultation with a veterinarian regarding approved usage and withdrawal time of antibiotics.

Suspend the calf, head down, for no more than 5 seconds to help drain mucus from air passages. The calf will die if suspended too long. Use towels to remove mouth mucus and to rub the calf’s back.
### Calf 911 – Caring for Newborn Calves

Range Cattle REC Youth Field Day 2021
Sonja Crawford and Colleen Larson

#### Causes of Calf Death

<table>
<thead>
<tr>
<th>Complication</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>15.7%</td>
</tr>
<tr>
<td>Scours, Diarrhea, or Other Digestive Problems</td>
<td>5.3%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>22.5%</td>
</tr>
<tr>
<td>Total</td>
<td>56.5%</td>
</tr>
</tbody>
</table>

#### Colostrum Absorption

<table>
<thead>
<tr>
<th>Time after Birth</th>
<th>Efficiency of Absorption</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hours</td>
<td>50%</td>
</tr>
<tr>
<td>6 hours</td>
<td>20%</td>
</tr>
<tr>
<td>12 hours</td>
<td>10%</td>
</tr>
<tr>
<td>24 hours</td>
<td>5%</td>
</tr>
</tbody>
</table>

#### Feeding and Weaning Calves

- **Feed Milk Replacer 2X Daily at 10% of Body Weight** (1 Gallon ≈ 8.6 LBS)
- **Provide Clean Water From Day 1**
- **Provide Starter on Day 3** (Start with a Handful)
- **Replace Starter and Water Daily (Keep It Clean)**
- **Wean Between 6-10 Weeks** (When Consuming 2LBS of Starter/Day)
- **Vaccinate 2 Weeks Before or After Weaning** - **Read the Label**
- **Use Fly Control**
- **Provide Well Ventilated Housing**

#### Table: Calf Appearance

<table>
<thead>
<tr>
<th>Stage</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal, alert &amp; active, head and ears held up</td>
</tr>
<tr>
<td>1</td>
<td>Slightly unresponsive, droopy ears</td>
</tr>
<tr>
<td>2</td>
<td>Depressed, lethargic, head held down, droopy ears, unsteady balance</td>
</tr>
<tr>
<td>3</td>
<td>Severe depression, reluctance to stand</td>
</tr>
</tbody>
</table>

#### Table: Calf Cost

<table>
<thead>
<tr>
<th>Stage</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Bright/Sleek</td>
</tr>
<tr>
<td>1</td>
<td>Rough/Dull</td>
</tr>
<tr>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Table: Calf Sunken Eyes

<table>
<thead>
<tr>
<th>Stage</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal, bright, no recession into the orbit</td>
</tr>
<tr>
<td>1</td>
<td>Dull, slightly sunken, recessed 2-4 mm into the orbit</td>
</tr>
<tr>
<td>2</td>
<td>Sunken, recessed 5-7 mm into the orbit</td>
</tr>
<tr>
<td>3</td>
<td>Deeply sunken, ≥8 mm of recession into the orbit</td>
</tr>
</tbody>
</table>

#### Table: Calf Ocular Discharge

<table>
<thead>
<tr>
<th>Stage</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No discharge</td>
</tr>
<tr>
<td>1</td>
<td>Minimal discharge</td>
</tr>
<tr>
<td>2</td>
<td>Moderate discharge</td>
</tr>
<tr>
<td>3</td>
<td>Heavy discharge</td>
</tr>
</tbody>
</table>

#### Table: Calf Nasal Discharge

<table>
<thead>
<tr>
<th>Stage</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No discharge</td>
</tr>
<tr>
<td>1</td>
<td>Minimal discharge</td>
</tr>
<tr>
<td>2</td>
<td>Moderate discharge</td>
</tr>
<tr>
<td>3</td>
<td>Heavy discharge</td>
</tr>
</tbody>
</table>

#### Table: Calf Teat Test

<table>
<thead>
<tr>
<th>Stage</th>
<th>Teat Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0 seconds (&lt;5% dehydration)</td>
</tr>
<tr>
<td>1</td>
<td>1-3 seconds (6-8% dehydration)</td>
</tr>
<tr>
<td>2</td>
<td>4-5 seconds (9-12% dehydration)</td>
</tr>
<tr>
<td>3</td>
<td>≥6 seconds (&gt;12% dehydration)</td>
</tr>
</tbody>
</table>

#### Table: Calf Navel III

<table>
<thead>
<tr>
<th>Stage</th>
<th>Condition Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>Navel is slightly swollen, not warm to touch</td>
</tr>
<tr>
<td>2</td>
<td>Navel is swollen, warm with slight discharge</td>
</tr>
<tr>
<td>3</td>
<td>Navel is very swollen, warm with excessive discharge</td>
</tr>
</tbody>
</table>

#### Table: Calf Joint III

<table>
<thead>
<tr>
<th>Stage</th>
<th>Condition Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
</tr>
<tr>
<td>1</td>
<td>Joints are slightly swollen, not warm to touch</td>
</tr>
<tr>
<td>2</td>
<td>Joints are swollen, warm, animal displays mild signs of lameness</td>
</tr>
<tr>
<td>3</td>
<td>Joints are very swollen, warm and animal displays severe signs of lameness</td>
</tr>
</tbody>
</table>

#### Table: Calf Gut Fill

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Full</td>
</tr>
<tr>
<td>1</td>
<td>Hollow</td>
</tr>
<tr>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Table: Calf Rear End

<table>
<thead>
<tr>
<th>Stage</th>
<th>Condition Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Clean</td>
</tr>
<tr>
<td>1</td>
<td>Loose fecal matter present on rear end</td>
</tr>
<tr>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Table: Calf Fecal Consistency

<table>
<thead>
<tr>
<th>Stage</th>
<th>Consistency Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Firm consistency</td>
</tr>
<tr>
<td>1</td>
<td>Soft to loose consistency, loose to watery consistency with a strong odor</td>
</tr>
<tr>
<td>2</td>
<td>Scours, loose to watery consistency with a strong odor</td>
</tr>
<tr>
<td>3</td>
<td>Severe scours, strong odor, consistency of water, blood may be present</td>
</tr>
</tbody>
</table>
**Medication Insert**

**Name of Drug**

OMNIBIOTIC
(Hydrocillin in Aqueous Suspension)

For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep

*Read Entire Brochure Carefully Before Using This Product*

**Active Ingredients**

Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in an aqueous base.

**Indications:** Cattle: Bronchitis; footrot; leptospirosis; mastitis; metritis; pneumonia; wound infections. Swine: Erysipelas; pneumonia. Sheep: footrot; pneumonia; mastitis; and other infections in these species caused by or associated with hydrocillin susceptible organisms.

**Recommended Daily Dosage**

The usual dose is 2 ml per 100 pounds of body weight given once daily. Maximum dose is 15 ml/day.

<table>
<thead>
<tr>
<th>Body Weight</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 lbs.</td>
<td>2 ml</td>
</tr>
<tr>
<td>300 lbs.</td>
<td>6 ml</td>
</tr>
<tr>
<td>500 lbs.</td>
<td>10 ml</td>
</tr>
<tr>
<td>750 lbs. or more</td>
<td>15 ml</td>
</tr>
</tbody>
</table>

Continue treatment for 1 to 2 days after symptoms disappear.

**Caution:**

1. Omnibiotic should be injected deep within the fleshy muscle of the neck or thigh. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage. 2. If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. 3. Treated animals should be closely observed for at least one half-hour. Should a reaction occur, discontinue treatment and administer epinephrine and antihistamines immediately. 4. Omnibiotic must be stored between 2°C and 8°C (36°F to 46°F). Warm to room temperature and shake well before using. Keep under refrigeration when not in use.

**Warning:** Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.

**How Supplied:** Omnibiotic is available in vials of 100 ml.

**Storage Requirements**

Withholding Times

**Route of Administration**

**Sizes Available**

**Cautions and Warning**

**Take Time**

**Observe Label Directions**

Unit 5, Level 1
Package Insert Information

(sometimes found on outer label)

Species and Animal Class: The species and animal class in which the drug is to be used.

Approved Uses: The situation for which the drug is to be used. Indicates the particular type of animal, condition, illness, etc.

Dosage: How much to give and how often/how many times given.

Route of Administration: (How is the product given to the animal?)

Basically, there are three routes of administering medications:

1. **Oral Route.** Administering drugs through the mouth. Tablets, pills, capsules and liquid medications are easily administered orally. A drenching tube, balling gun, or oral dosage syringe is usually used to place the liquid or pill at the base of the tongue at the back of the mouth. Make sure the medication goes down the throat and the animal swallows it. Take care the animal is not choked by the medication going down the trachea (windpipe). You can also administer medications in the animal's feed or water.

2. **Topical Route.** Applying the medication to the skin or to the mucous membranes of the eyes, ears, nasal passages, or reproductive tract. Such medications are available as ointments, aqueous solutions, powders, and aerosols. Do not allow these products to come in contact with the animal's eyes, nose, reproductive tract, or mouth unless it is specifically formulated for that use.

3. **Injectable Route.** Administering the drug directly into an animal's body with a syringe and needle. Injections are the most common method to administer medications. The label will specify which of the following injection methods to use.

   **Subcutaneous (sub Q) injections** are accomplished by inserting the needle just under the skin and not into the muscle! This is important because sub Q injectables are designed for a slower rate of absorption or are highly irritating to muscle tissue.

   **Intramuscular (IM) injections** are the most commonly used. This is accomplished by inserting the needle straight into the skin and deep into the muscle.

   **Intravenous (IV) injections** are sometimes used. Some medications are labeled for intravenous injection only, because they are strong irritants to muscle tissue and can cause tissue damage. The IV route of administration provides a rapid means of getting the medication into the system of a sick animal as well as eliminating the chance of tissue damage. IV injections are given directly into the bloodstream.
So You Wanna Start A Business

Chris Prevatt and J.K. Yarborough
UF/IFAS Range Cattle REC

Don’t Quit Your Day Job – If you are presently working, stay where you are at until you have time to fully research your idea, develop your goals, and explore the viability of the business. Too many people jump off the deep end just to find out how shallow the water is. Unless you are independently wealthy or have some other funding source of financial support while you research your idea, you must recognize that to make this idea a reality you must have some income to pay your bills. This will mean that you will have to work on your idea before and after your regular working hours.

Eight Things to Consider When Starting Your New Business

1) Develop a Written Plan.

Your business plan is the foundation of your business. It’s a roadmap for how to structure, run, and grow your new business. You’ll use it to convince people that working with you — or investing in your company — is a smart choice. Grab a sheet of paper and just start writing or drawing whatever you want to do. This is your STARTING POINT.

2) Refine your Idea and Start with "WHY"

It is good to know why you are launching your business. In this process, it may be wise to differentiate between whether the business serves a personal why or a marketplace why. When your why is focused on meeting a need in the marketplace, the scope of your business will always be larger than a business that is designed to serve a personal need.

3) Conduct Market Research

Market research will tell you if there’s an opportunity to turn your idea into a successful business. It’s a way to gather information about potential customers and businesses
already operating in your area. Use that information to find a competitive advantage for your business.

4) Clarify Who Your Target Customers Are

Spend some time thinking about who your customers will be… also, how will you or your product provide value to your customers? You must communicate to your customer that value in a way that they are willing to pay for it. You must answer the question, why would they want to buy from me or hire me?

5) Identify Funding

Let’s consider your funding options... How will you fund your business? Startup capital for your business can come from various sources. Your business plan will help you figure out how much money you’ll need to start your business. If you don’t have that amount on hand, you’ll need to either raise or borrow the capital. The best way to acquire funding for your business depends on several factors, including creditworthiness, the amount needed and available options.

6) Pick your Business Location

Your business location is one of the most important decisions you’ll make. Whether you’re setting up a brick-and-mortar business, starting a new farm or ranch, or launching an online store, the choices you make could affect your taxes, legal requirements, and revenue.

7) Choose your Business Name

It’s not easy to pick the perfect name. You’ll want one that reflects your brand and captures your spirit. You’ll also want to make sure your business name isn’t already being used by someone else.

8) Have an Exit Strategy

It’s always a good idea to consider an exit strategy if things don’t go as planned. If there’s another major crisis, shutdowns, or stay-at-home orders, will your business survive? Generating a few ideas of how you could exit the business if necessary.
Bluebirds on the Ranch

Hance Ellington and Bethany Wight

♦ Eastern bluebirds (Sialia sialis) are native to the Eastern United States and Central America.

♦ Small thrush (~2/3 size of a Robin)
  ♦ Length = 6-8 inches
  ♦ Wingspan = 10-13 inches
  ♦ Weight = 1-1.1 ounces

♦ Males are bright blue with an orange throat and breast. Females are grayish with bluish wings and tails and a light orange breast.

♦ Live in grasslands and openings with nearby trees for protection and suitable nest holes. With the use of nest boxes they are now common alongside roads, fields, golf courses and other open areas.
  ♦ Bluebirds perch on wires, posts and branches in open areas scanning the ground for insects. In the fall and winter they also consume berries.
  ♦ Males attract females by carrying bits of nesting material in and out of the nest. Once the female enters with him, the pair bond is typically established and remains for several seasons.
  ♦ Bluebirds are secondary cavity nesters, meaning they use old woodpecker nests or artificial nest boxes. Nesting typically occurs from mid-February to mid September.

♦ Bluebirds can re-nest 2-3 times/year.

♦ Lay an egg a day, typically 4-5 pale blue eggs.
  ♦ Day 5-6: eyes open
  ♦ Day 7-8: can maintain body temperature
  ♦ Day 14: capable of short flight
  ♦ Day 17-18: leave the nest
  ♦ Day 35-40: fully grown.
♦ Bluebirds migrate across much of their range, however, in Florida some are year-round residents.

♦ Habitat loss, the loss of natural nesting cavities and the introduction of two invasive species, the European starling and the house sparrow, caused a crash in bluebird populations.

♦ Both house sparrows and starlings are aggressive and will chase away or kill bluebirds.

♦ Luckily, bluebirds use artificial nest boxes and a widespread effort by many individuals and organizations like the Florida Bluebird Society and the North American Bluebird Society have led to steadily increasing trends in bluebird abundance.

♦ Today, ongoing threats in Florida include urbanization, climate change, competition with invasive species and pesticide use.

♦ You can help by installing nest boxes or helping monitor a nest box trail, reporting sightings and successful nests to Nestwatch and eBird, keeping cats indoors, promoting open areas and reducing pesticide use.

♦ There are many different types of bluebird nest boxes. The most important things to consider are:
  ♦ Well ventilated, water tight, drainage holes, easy to open, monitor, and clean.
  ♦ Use solid, untreated wood, the outside can be sealed or painted if a light color.
  ♦ No perches and the entrance hole should be 1 1/2” to 1 9/16” in diameter.
  ♦ Use a predator guard and periodically coat the pole with wax or grease to prevent predators, like fire ants, from accessing the nest.

♦ For more information and nest box plans visit: floridabluebirdsoociety.org and nabluebirdsoociety.org or watch our “Become a Bluebird Watcher” virtual series at rec-ona.ifas.ufl.edu/virtual-classroom.