Columbia County 2007 Census of Agriculture
Columbia County has seen a few changes since 2002 in regards to Agriculture. Due to the increase in the population since 2002 we have seen an 43% increase in the number of farms from 688 to 982.

Columbia County Agriculture Quick Facts
- 688 farms in 2002, 982 in 2007, up 43%
- Average farm size; 131 acres in 2002, 88 acres in 2007, down 33%
- Average farm size; 601 farms have acreage between 10-49 acres
- 90,227 farm acres in 2002, 85,952 acres in 2007, down 5%
- Market value of production; $46,767,000 in 2002, $57,575,000 in 2007, up 18%
- Average net cash income per farm, $58,630
- Land in Farms: Cropland 35%, Woodland 25%, Pasture 33%, Other 7%
- 23% of Columbia County principal farm operators are women

For more information on Columbia County, click on the link below.

2007 Census of Agriculture
Annual Ryegrass Fertilization
With the right temperatures and moisture conditions, annual ryegrass will be very responsive to N fertilization. Fertilization should be based on a soil test since the initial levels of soil nutrients will depend on previous fertilization practices, rainfall, and soil texture. Based on your soil test results, P and K should be applied either at planting or soon after. If needing K fertilization on sandy soils, it is recommended to do a split application, particularly if the recommendation or requirement is high, split half in late fall and the other half in late winter.

If planting on a prepared seedbed, 30 lb/acre N is usually applied at planting, and then top dress with 50 lb/acre after each cutting or grazing period (anywhere between 2 or 3 times during the growing period. If the ryegrass has been overseeded on a warm season perennial like bahiagrass or bermudagrass, the first N application should be postponed until after the first frost to avoid N uptake by the warm-season grass.

Dr. Yoana Newman, Extension Forage Specialist
ycnew@ufl.edu

Fall Forage Update
Rye – Rye is the small grain most widely used for winter grazing. Rye is more cold tolerant than oats and generally produces more forage than either oats or wheat. If rye is planted very early in the season, there may be a decreased stand caused by various seedling diseases. Normally rye developed from northern states will produce little forage in late fall or early winter and will usually be severely damaged by leaf rust; therefore, plant only varieties recommended for the Southeastern U.S.

Recommended varieties: FL 401 (for early grazing or for use in blends), AGS 104, Wrens 96, Wrens Abruzzi, Bates, Oklon, Wintergrazer 70, and Early Graze.

Oat – Oat is very palatable, but is susceptible to freeze injury. Oat may be planted and grazed earlier than rye. Horizon 474, Horizon 270, and Horizon 201 are relatively new varieties that have improved crown rust resistance, winter hardiness, and good grain and forage production. In some years, some varieties, like NK-Coker 227, may be injured by Barley Yellow Dwarf Virus (BYDV).

Recommended varieties: Horizon 270, Horizon 201, Horizon 321, Horizon 474, SS76-40, RAM LA99016, and TAMO 406.

Wheat – Wheat is similar to oat in forage yield and palatability. Wheat is less susceptible to freeze injury than oat. Wheat should not be planted for grazing before October 15 and precaution to plant only Hessian-fly-resistant varieties for grazing should be taken.

Recommended varieties: SS8641, USG 3592, and Pioneer 26R61

Triticale- Triticale is a cross between wheat and rye. It is well adapted to the southern U.S. and
Peninsular Florida. Triticale has the forage quality of wheat and the excellent disease resistance of rye. Triticale does not respond well to close grazing and therefore is only recommended for haylage or silage. If used in grazing, consider blending with ryegrass to promote a longer growing season.

**Recommended varieties for silage:** Trical 2700, Trical 342, and Monarch

**Ryegrass** – Ryegrass is a valuable winter and spring grazing crop for use on flatwoods soils or the heavier sandy loam soils in northwest Florida. Ryegrass may be seeded alone or with a small grain on a prepared seedbed or overseeded onto permanent grass pastures. Seeding ryegrass with a small grain crop lengthens the grazing season.

**Recommended varieties:** Attain, Big Boss, Bulldog/Grazer, Ed, Flying A, Jumbo, Maximus, Rio, TAMTBO, Verdure.

**Early:**
Attain, Big Boss, Bulldog/Grazer, Ed, Flying A, Oregro DH-3, Rio, TAMBO, and Verdure

**Late:**
Attain, Big Boss, Jumbo, Marshall, ME94, Rio, TAMTBO, and Verdure

**Season-long:**
Attain, Big Boss, Ed, Jumbo, Rio, TAMTBO, and Verdure

These varieties were selected based on their recent three-year, multi-location performance. Other ryegrass varieties, such as Prine, Florlina, Surrey II, Jackson, Big Daddy, TAM 90, Passeral Plus, Brigadier, Fantastic, Graze-N-Gro, King, Beefbuilder III have also performed well in regional trials. (Other new varieties may be suitable but have not been adequately evaluated in Florida.)

**Tall Fescue** – In general, fescue should not be planted in Florida. It does not persist as a perennial, and as a cool-season annual, small grains and ryegrass are more productive. A few producers have had limited success with Ga-5 when planted on low, wet, clay soils in northwestern Florida.

**Recommended varieties:** Max Q endophyte-friendly fescue where adapted.

**White Clover** – White clover is usually a winter annual but may act as a perennial under optimum soil fertility and moisture conditions. It is adapted to moist soils throughout Florida. Production and persistence of white clover can be limited by nematodes and other pests.

**Recommended varieties:** Osceola (developed in Florida), Louisiana S-1, and Regal Ladino. Durana and Patriot are also well adapted but have a prostrate growth habit and lower initial forage yields, but persist well under grazing.

**Red Clover** – Red clover behaves as a winter annual under Florida conditions and usually does not reseed itself. It does not tolerate poorly drained soils. Red clover provides long-season forage production in north Florida.

**Recommended varieties:** Southern Belle, Cherokee (seed will be unavailable in 2009), Bulldog Red, and Redland. Cherokee and Southern Belle were developed in Florida and both are non-dormant (earlier forage production) types that produce greater total-season forage yields than dormant varieties.

**Alfalfa** – Alfalfa is usually grown as a winter short-term perennial in Florida. Alfalfa is used for
haylage, green chopping or hay. Alfalfa requires good management and high soil fertility. It is not tolerant of flooding or soils with high water tables. Alfalfa is not widely cultivated in Florida because of the cost of production and management requirements.

**Recommended varieties:** Florida 99 (seed will be unavailable in 2009), Bulldog 805, and Amerigraze 702.

**Crimson Clover** – This clover is a reseeding annual that is adapted to fertile well-drained soils. It has a relatively short grazing season. Crimson clover may be grown in combination with rye-grass or a small grain crop.

**Recommended varieties:** Dixie and AU-Robin. Flame, Chief, and Tibbee may be available but commercial seed production for these cultivars will be limited in 2009.

**Arrowleaf Clover** – Arrowleaf clover is an annual that is similar to crimson clover in soil adaptation, management and fertility requirements. It is mainly grown on heavier soils in northwestern Florida. Arrowleaf clover makes more growth in late spring than crimson clover.

**Recommended varieties:** Yuchi and Apache. Apache has improved virus resistance compared to Yuchi.

**Lupine** – Lupine is an annual plant adapted to well-drained soils in northern and western Florida. It is an excellent cover crop. In recent years seed supply has been low, and forage production has been limited by diseases and insects. Only sweet lupine varieties are suitable for forage.

**Recommended varieties:** Tifblue. Tifwhite and Frost are also recommended, however commercial seed production of these lupine varieties has been limited and seed is currently unavailable.

**Sweetclover** – Sweetclover grows on slightly drier soils than white clover. It will not tolerate flooding. Sweetclover has an earlier but shorter grazing season than white clover. Sweetclover should be reseeded each year.

**Recommended varieties:** None at present. New varieties should be commercially available shortly.

**Austrian Winter Peas** – (Common). This annual legume is best suited to well-drained soils with high clay content.

**Recommended varieties:** Common

**Vetch** – Vetch grows best on well-drained, fertile, loamy soils. Although it is well adapted, it is not a highly productive forage in Florida.

**Recommended varieties:** Hairy, Americus, AU-Early Cover, Cahaba White, and Nova II. Commercial seed production of most vetch varieties will be limited in 2009.

**Ball Clover** – Ball clover grows on a wide-range of soil types. Although it is well adapted, it is not considered be a highly productive forage in Florida.

**Recommended varieties:** Segrest and common. Pre-inoculated seed is available in 2009.

**Berseem Clover** – Berseem clover has low bloat potential and is well-adapted to many soil types in Florida, including more alkaline and wet soils. Care should be given to the management of
berseem clover when grazed. It is advisable to graze at about 10 inches and leave a 3-4 inch stubble height.

**Recommended varieties:** Bigbee.

http://edis.ifas.ufl.edu/pdffiles/AA/AA26600.pdf

**Soil Testing for Forage Production**

Periodic soil testing, followed by liming and fertilization according to soil test recommendations, is critically important to achieving good forage production and maintaining forage stands. Soil testing is the most effective way to determine the nutrient status and pH of the soil in a pasture or area where forages are to be planted. Soil test results are useful to determine whether fertilizer or lime applications are needed. It is recommended to do the testing well before it is time to plant because in the case of lime it is recommended that you allow sufficient time for the soil to react with the lime.

Soil samples should be analyzed at the University of Florida/IFAS Extension Soil Testing Laboratory (ESTL; http://soilslab.ifas.ufl.edu) or other reputable laboratory. The ESTL uses soil test methods that were developed specifically for Florida soils. The lab determines soil pH, lime requirement, and the available soil nutrients in the sample. These test methods have been calibrated across Florida and other Southeastern states for many years to guarantee that the results are valid under Florida conditions. Private laboratories may or may not use soil tests that are calibrated for our region; therefore, if you choose to have your sample analyzed by a private laboratory, it is important that you know which tests are offered. Additionally, UF/IFAS fertilizer recommendations are specific to the soil tests offered through the ESTL, which is important when interpreting the results.

Link to the nutrient testing for bahiagrass pastures:
http://soilslab.ifas.ufl.edu/ESTL_files/BahiaProtocalForm.pdf

**Grass Tetany**

Grass tetany or grass staggers is a disorder in cattle associated with low levels of magnesium in the blood of the ruminants grazing ryegrass, or small grains in late winter and early spring. In Florida, grass tetany tends to occur when cattle graze plants grown on soils low in available magnesium, or when grazing the first flush of growth from cool-season forages when forage is at a young stage. Once the forage is more mature the likelihood of the problem is reduced. It can also occur when cattle graze areas right after a frost or very low quality pastures causing them to be deficient in magnesium at a time when lactation requires a substantial quantity of this element. Wet soils, low in oxygen, may also prevent plants from taking up sufficient magnesium regardless of the soil magnesium level.

Grass tetany is more likely to occur on soils low in phosphorus but high in potassium and nitrogen because this combination tends to inhibit magnesium uptake by the plant. This can be a problem with cool season grass forage fertilized with high rates of N or broiler litter. Generally, forage containing 0.2 percent magnesium or more is unlikely to cause tetany.

To avoid grass tetany, if pastures are deficient in magnesium, they need to be limed with dolomite or dolomitic limestone. Dolomite is a mineral composed of calcium and magnesium carbonates; pure dolomite contains 40 to 45% MgCO3 and 54 to 58% CaCO3. Dolomitic limestone has a lower concentration of MgCO3 usually 15 to 20%.

Pastures containing sufficient legume forage will normally offset the problem because legumes have a high concentration of magnesium in their tissues. However, legume growth is often lim-
Winter Rye and its Weed killing Properties

Rye (Secale cereale), is a winter grain not to be confused with annual Ryegrass (Lolium multiflorum). Rye is one of the small grains together with oats, wheat, barley, and triticale. This grass is popular in Florida because of its multipurpose use. It has an extensive and heavy root system, and the ability to grow in sandy and low fertility soils. It is also the winter hardiest of all small grains; it will grow at lower temperatures where other winter grains usually will not. Rye plants are often used as ground cover and to reduce erosion. Of particular interest, is the weed-killing capability of this crop. Rye suppresses weeds without herbicides, making it a common cover crop on organic farms.

Scientists with the Agricultural Research Service (ARS), John Teasdale and Cliff Rice and their research team, are trying to understand why Rye works as a cover crop. The studies are the first attempts to measure organic compounds known as ‘benzoxazinoids’ released from rye, and their impacts as weed suppressors. The goal of these researchers is to continue the experiments until more light is shed on the compounds involved and their relation to soil chemistry properties.

Dr. Yoana Newman, Extension Forage Specialist
ycnew@ufl.edu

Control of Winter Weeds in Hayfields

Winter weeds are always a problem early in the spring, but the lifecycle is over soon after the first hay cutting. The first hay cutting often serves to remove these winter weeds to aid in increasing the quality of subsequent harvests. Since winter weeds don’t linger, we have come to accept that hay bales from the first cutting are typically weed infested and low in quality. With the frequent rain that the state has received this fall, winter weeds will be more prevalent than normal. Taking steps now to reduce the winter weed infestations will result in better quality hay. There are many herbicide options that will effectively control these winter weeds and increase the quality of the hay from the first cutting. Below is a short list of products that I have found to be valuable for control of winter weeds.

Glyphosate:
In north Florida, where bermudagrass goes completely dormant in the winter, glyphosate can be highly effective and cost less than $5 per acre. Apply 11-16 oz/A (see product label for specific use rate) for control of winter grasses (except ryegrass) and broadleaf weeds. If wild radish or cutleaf evening primrose is present, the addition of 1-2 pt/A 2,4-D will be necessary. Do not apply glyphosate if bermudagrass has any green tissue present. Glyphosate applied to bermudagrass during transition will delay greenup and extend the first cutting. If the grass is starting to transition, Gramoxone Inteon (40 day cutting restriction) can be substituted for glyphosate. Broadcast applications of glyphosate are not recommended in hayfields in south Florida because many of these fields never go totally dormant.
Metsulfuron:
Metsulfuron, formerly sold as Cimarron, is now available under a variety of trade names. This herbicide is fairly inexpensive and effective on a wide variety of broadleaf weeds. Wild radish, chickweed, and red sorrel are very sensitive to this herbicide. Bermudagrass injury is not a concern with this herbicide and it can be applied at any time since there are no grazing or haying restrictions.

Chaparral:
Chaparral is a relatively new herbicide that combines metsulfuron and aminopyralid (the active ingredient in Milestone). Metsulfuron controls many winter weeds, as noted above, while the aminopyralid component improves control of thistles, cudweed, Carolina geranium, and fireweed. The combination of these herbicides will likely control a majority of the broadleaf weeds present on a given hayfield.

2,4-D:
2,4-D is often the least expensive way to control a variety of troublesome broadleaf weeds. This herbicide will be effective on pepperweed, wild radish, cutleaf eveningprimrose, and small thistles. Application rates in excess of 1 qt/A will be necessary if the wild radish is blooming or if thistles are greater than 12” in diameter. 2,4-D will not adequately control fireweed or red sorrel. For optimum control of sensitive weeds, it is best to use the ester formulation when applying during cooler temperatures.

Winter weed control can be relatively easy and inexpensive. Removing these weeds will allow the bermudagrass to transition from dormancy more quickly, and greatly improve the quality of the first hay harvest.

Dr. Jason Ferrell, Weed Specialist
jferrell@ufl.edu

Dr. Brent Sellers, Extension Weed Specialist
Range Cattle REC, Ona
sellersb@ufl.edu
**Beef Cattle Management**

- Apply lime for summer crops
- Check for lice and treat if necessary
- Control weeds in cool season pastures
- Rye should be 12-18 inches high at grazing
- Check mineral feeders
- Put bulls out for October calving season
- Make up breeding herd lists if using single sire herds
- Watch for calf scours
- Give bulls extra feed and care so they will be in condition for breeding season
- Buy only performance tested bulls with superior records
- Discuss herd health with your veterinarian and outline a program for the year. Review herd health program with your veterinarian regularly
- Carry a farm pocket notebook for record keeping ([UF/IFAS Farm Pocket Notebook](http://entomology.ifas.ufl.edu/pestalert/))
- Observe cow herd for calving difficulties
- Watch for grass tetany on winter pastures
- Increase magnesium levels in mineral mixes if grass tetany has been a previous problem (if you are not already using a high magnesium mineral).
- Examine bulls for breeding soundness and semen quality prior to the breeding season.
- Vaccinate cows and heifers against vibriosis and leptospirosis prior to the breeding season

**Equine**

The Florida Department of Health confirms that a horse (Putnam County) was confirmed with Eastern equine encephalitis virus in late 2009. The horse was euthanized. Florida had 74 positive samples for EEE in 2009.

A link to the report is available on the UF/IFAS Pest Alert site. The UF/IFAS Pest Alert WWW site is available at [http://entomology.ifas.ufl.edu/pestalert/](http://entomology.ifas.ufl.edu/pestalert/)

Amanda M. House, DVM, University of Florida, College of Veterinary Medicine, gives the following basic guidelines for immunizing the adult pleasure or performance horse.

**Tetanus**: A booster should be given two months after the initial dose and revaccinate yearly.

**Equine Encephalomyelitis**: (Eastern Equine Encephalomyelitis (EEE), Western Equine Encephalomyelitis (WEE), and Venezuela Equine Encephalomyelitis (VEE). All horses should be vaccinated for EEE/WEE every six months and some veterinarians recommend every four months in Florida’s coastal counties.

**West Nile**: This virus is transmitted by mosquitoes; horses should be vaccinated annually for possible protection.

**Rabies** is an uncommon disease in the horse. However, in any areas where rabies is endemic in
the wildlife population, horses can be exposed through a bite from an infected animal. Vaccination is recommended followed by a yearly booster.

Equine influenza is one of the most infectious respiratory diseases in the horse. The virus is highly contagious and can be transmitted through the air from horse to horse as a result of coughing. Vaccination is recommended every six months.

Rhinopneumonitis generally affects the upper respiratory tract causing fever, nasal discharge, and sometimes cough. Adult horses determined to be at risk for infection are usually vaccinated every six months.

Vaccines for strangles and Potomac horse fever are available here in Florida; their use should be discussed with your veterinarian.

Remember these are basic guidelines for pleasure and performance horses. For a more thorough immunization program, please consult with your veterinarian, or see references used for this article below.

EDIS Documents:
Developing a Vaccination and Deworming Program for the Adult Horse
Understanding Equine Strangles: Signs of Disease, Management and Prevention

**Goats**
Nutrient Requirement for Goats

<table>
<thead>
<tr>
<th>Table 1. Dietary Protein, Energy, and Mineral Requirements of Goats 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of Goat</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Growing doeling, 45 lb a</td>
</tr>
<tr>
<td>Growing male kid, 66 lb b</td>
</tr>
<tr>
<td>Yearling doe, 90 lb c</td>
</tr>
<tr>
<td>3 yr old doe, 110 lb d</td>
</tr>
<tr>
<td>Mature buck, 220 lb e</td>
</tr>
<tr>
<td>Dairy doe, 150 lb f</td>
</tr>
</tbody>
</table>

1 Calculated on basis of the dry matter in the feeds eaten.
a Growing at the rate of .25 lb/day
b Growing at the rate of .33 lb/day
c Yearling female, last trimester of pregnancy and growing
d Milking 2 qt/day-enough for twins
e Not gaining wt, moderate activity
f Nubian, milking/gallon/day of 4.0% bf
### Table 2. Practical Dietary Recommendations for Feeding Goats

<table>
<thead>
<tr>
<th></th>
<th>% Protein</th>
<th>% TDN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growing Kids, Dry Does and Bucks</td>
<td>9-10</td>
<td>54-58</td>
</tr>
<tr>
<td>Pregnant Goats</td>
<td>10-11</td>
<td>56-60</td>
</tr>
<tr>
<td>Lactating Goats</td>
<td>12-13</td>
<td>62-68</td>
</tr>
</tbody>
</table>

References:

Meat Goat Production Handbook - Feeding Programs

**Timber Mart-South Summary, 4th Quarter, 2009**

The information in the following table was extracted from the Timber Mart-South fourth quarter 2009 report, released in January 2010. This information, compiled from many sources, is very useful for observing trends over time, but may not necessarily reflect current conditions at a particular location. Region 1 is central and northeast Florida; Region 2 includes the panhandle. In addition to general market conditions, prices vary from sale to sale depending on tract size and access; quality, quantity, and size of timber; distance to mills; and other market conditions. Landowners considering a timber sale would be wise to let a consulting forester help them obtain the best current prices.

#### Stumpage Prices, 2009, 4th Quarter

<table>
<thead>
<tr>
<th>Product</th>
<th>Region</th>
<th>Average</th>
<th>Range</th>
<th>$/Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine Pulpwood (m/Std. Cord)</td>
<td>Northeast(1)</td>
<td>$25</td>
<td>$21-29</td>
<td>$9</td>
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<tr>
<td></td>
<td>Northwest(2)</td>
<td>$25</td>
<td>$21-29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>$25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chip-n-Saw (m/Std. Cord)</td>
<td>Northeast(1)</td>
<td>$38</td>
<td>$32-43</td>
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<tr>
<td></td>
<td>Northwest(2)</td>
<td>$43</td>
<td>$37-48</td>
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<tr>
<td></td>
<td>Average</td>
<td>$40</td>
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<td>$15</td>
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<tr>
<td>Pine Sawtimber (m/MBF Scrub)</td>
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<td>$200</td>
<td>$170-229</td>
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<tr>
<td></td>
<td>Northwest(2)</td>
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<td>$159-222</td>
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<td></td>
<td>Average</td>
<td>$195</td>
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<td>$26</td>
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<td>Oak Sawtimber (m/MBF Doyle)</td>
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<td>$178-227</td>
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<tr>
<td></td>
<td>Northwest(2)</td>
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<td>$156-222</td>
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<tr>
<td></td>
<td>Average</td>
<td>$201</td>
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<tr>
<td>Mixed Hardwood Sawtimber (m/MBF Doyle)</td>
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<td>$136-190</td>
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<td>Northwest(2)</td>
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<td></td>
<td>Average</td>
<td>$149</td>
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<tr>
<td>Pine Prylogs (m/MBF Scrub)</td>
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<td>$283</td>
<td>$203-364</td>
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<td></td>
<td>Northwest(2)</td>
<td>$224</td>
<td>$176-272</td>
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<tr>
<td></td>
<td>Average</td>
<td>$254</td>
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<td>$34</td>
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<tr>
<td>Power Poles (m/MBF Scrub)</td>
<td>Northeast(1)</td>
<td>$372</td>
<td>$330-413</td>
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<td></td>
<td>Northwest(2)</td>
<td>$374</td>
<td>$351-397</td>
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<tr>
<td></td>
<td>Average</td>
<td>$373</td>
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<td>$50</td>
</tr>
<tr>
<td>Hardwood Pulp (m/Std. Cord)</td>
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<td>$21</td>
<td>$14-27</td>
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<td>Northwest(2)</td>
<td>$20</td>
<td>$14-27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>$20</td>
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