



# HOMESTEAD & FARM NOTES 4-H Happenings

January 2015

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# HAPPY NEW YEAR



Did you know □□□□ 90% of kids consume too much sodium. Kids usually develop a taste for salty foods early in life. This is usually based on the amount of salt parents use. Foods that contribute the highest amounts of sodium in our kid's diet are foods such as pizza, cold cuts, breads, savory snacks and cheese. The meals that contribute the highest amount of sodium are lunch and dinner. Usually these meals consist of fast foods or prepackaged high salt, high fat foods. [Heart.org/sodium](http://Heart.org/sodium) through the American Heart Association offers simple tips on ways to reduce the sodium in the food your family consumes.



## Upcoming Programs & Events

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The Real Resolution

Crock Pot Chicken Taco



**January 12th: BUSA Meeting** Not mandatory at the Lake Butler Community Center at 7:00PM. Bring covered dish, meat will be provided. RSVP by January 5th to [BUS-A2014@gmail.com](mailto:BUS-A2014@gmail.com)

**January 13th: North Florida Cattlemen's Association Quarterly Meeting** at 5:30PM at the Baker County Extension Auditorium, Macclenny. Please call 904-259-3520 or e-mail [baker@ifas.ufl.edu](mailto:baker@ifas.ufl.edu) to RSVP by noon on January 12th.

**January 16th: Hydroponics & Alternative Gardening Workshop** at the Baker County Extension Office from 10:00AM to 11:30AM. Class will be held again on **January 23rd** from 2:00PM to 3:30 PM. Please call 904-259-3520 to pre-register.

**January 16th & 17th: Bradford Beef Bash 2nd Annual Prospect Show.** Please visit <http://bradford.ifas.ufl.edu/documents/BradfordBEEFBashrules2015.pdf> for more details and information.

**January 24th: Union County 4-H Goat Show** at 8:00AM at the Union County FFA Barn.

**January 29th: Crockpot Cookin' Light** at the Union County Extension Office from 5:30PM to 7:00PM. Limited to 15 people. Call Samara Deary at 386-392-6705 or e-mail her at [sdeary@ufl.edu](mailto:sdeary@ufl.edu). You may also call the Extension Office at 386-496-2321.

**February 17th: 25th Annual Tri-County Pesticide Update** at the Lake Butler Community Center from 5:00PM to 9:00PM. Please call 386-496-2321 to pre-register.

# Balancing Ration for Meat Goat Using Pearson Square Method

By: Basil Bactawar, Union County Extension Director & Agent

It is important to supply the required nutrients in the rations of meat goats. Nutrient deficiencies lead to reduced growth, low reproductive performance and poor animal health that can be costly. Ration can be balanced by the Pearson Square method, substitution formulation and the use of a computer. The use of Pearson square is most effective when only two feeds are being used. In addition, the animal requirement (the number in the center of the square must fall between the nutrient concentrations in both feeds. For example, if the animal requirement is 10% crude protein, then one feed must be greater than 10% and the other must be less than 10%.

A ration can be balanced for Total Digestible Nutrient (TDN) and crude protein (CP), fat (EE) etc. When balancing goat rations for these nutrients, the method requires their nutritive values which can be found in a farm's forage/feed analysis reports or from book values. Table 1. lists the ingredients that will used to balance a meat goat ration using coastal Bermuda hay, whole shelled corn and cottonseed meal.

Table 1. Nutritive Value of Feed Ingredients Used in Balancing Goat Ration

Feedstuff	% Dry Matter	% TDN	% CP
Coastal Bermuda hay	89	53	10
Whole shelled corn	88	88	9
Cotton seed meal	92	80	46

Apart from the feed analysis report, the nutrient requirements of the animal must be known as well. Requirements vary with the weight, sex, average daily gain etc. These are taken from the Nutrient Requirements of Small Ruminants (2006). A ration will be balanced for a 77 lb. growing doeling/castrated male (both have same requirements) with an average daily gain of 0.45 lb., requiring 67.1 % TDN and 16.2 % crude protein.

Table 2. Daily Gain, Dry Matter Intake ,Total Digestible Nutrient (TDN) and Crude Protein (CP) for doeling/castrated male

Growing Doeling/ Castrated Male	Daily gain	Dry Mat- ter In- take	Total Digestible Nutrients	Crude Protein
Live Weight (lb.)	Lb.	Lb.	%	%
77	0.45	2.43	67.1	16.2

Nutrient Requirements of Small Ruminants, NRC 2006

## Steps in Balancing the Ration

**Step 1.** Firstly balance the TDN in the ration. Start by drawing a square and put 67.1 (the desired TDN) in the center of the square. Please refer to Figure 1.

**Step 2.** Write the TDN value for coastal bermuda hay (53) on the upper left corner of the square, and whole shelled corn (88) on the lower left corner.

**Step 3.** Write Coastal bermuda hay in the upper right side of the square and whole shelled corn on the lower right side of the square.

**Step 4.** Subtract diagonally the smaller number from the larger number ( $67.1 - 53 = 14.1$ ;  $88 - 67.1 = 20.9$ ). Write the results on right side of square.

**Step 5.** Divide the results of the subtractions for coastal bermuda hay and the whole shelled corn by the total parts ( $20.9 + 14.1 = 35$ ) to get their preliminary percentages. For coastal Bermuda hay it is ( $20.9 \div 35 = .597 = 59.7\%$  and for whole shelled corn it is ( $14.1 \div 35 = .403 = 40.3\%$ ).

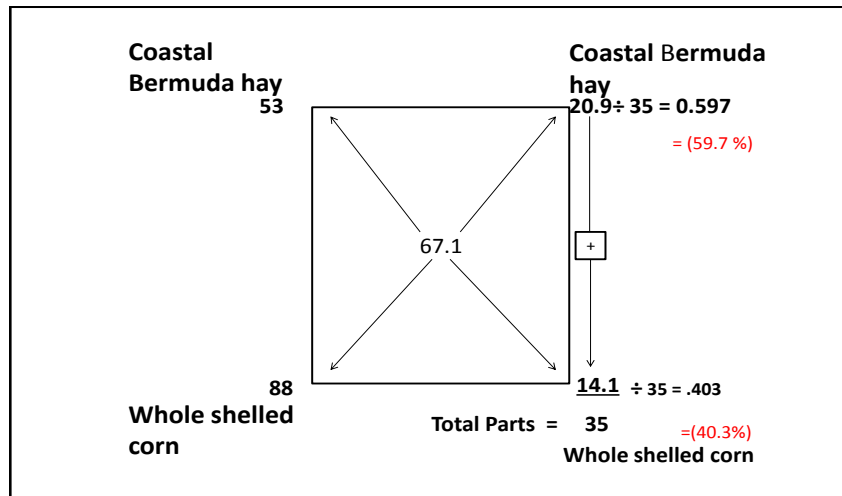


Figure 1. Balancing ration for TDN

**Step 6.** Next calculate the protein concentration in the coastal bermuda hay and the whole shelled corn by multiplying each feed ingredient percentage by its crude protein.

Table 3. Calculation the amount of crude protein supplied by coastal Bermuda hay & corn

Feedstuff		Crude Protein
Coastal bermuda hay	$.597 \times 10$	5.97 %
Whole shelled corn	$.403 \times 9$	3.63 %
Total		9.6 %

**Step 7.** Find out if the crude protein is adequate in the ration. The concentration in the Coastal bermuda hay and whole shelled corn is 9.6%. The doeling/castrated male requirement is 16.2 %. Therefore 6.6 % CP ( $16.2 - 9.6$ ) is lacking in the ration. It can be increased by adding a protein supplement such as cotton seed meal.

**Step 8.** Once again use Pearson Square method to balance for crude protein as shown on Figure 2. The required crude protein in the rations is 16.2%. It goes in the center of the square.

**Step 9.** We now have to use coastal bermuda hay/whole shelled corn mix as a feedstuff (9.6 %) which goes on the upper left corner, and cotton seed meal (46%) which goes on the lower left corner.

**Step 10.** Subtract diagonally the small number from the large number ( $16.2 - 9.6 = 6.6$ ;  $46 - 16.2 = 29.8$ ). Then write the numbers on the right side of the square as before.

**Step 11.** Add the CP values on the right side of the square ( $29.8 + 6.6 = 36.4$ ) to get total parts. Then divide the results of the subtractions for coastal bermuda hay/whole shelled corn and cotton seed meal by total of the parts to obtain the preliminary percentages ( $29.8 \div 36.4 = .819 = 81.9\%$ ) and ( $6.6 \div 36.4 = .181 = 18.1\%$ ).

**Step 12.** The result shows that 81.9% of coastal bermuda hay/whole corn and 18.1 % of cotton seed meal make up a ration consisting of 16.2 CP.

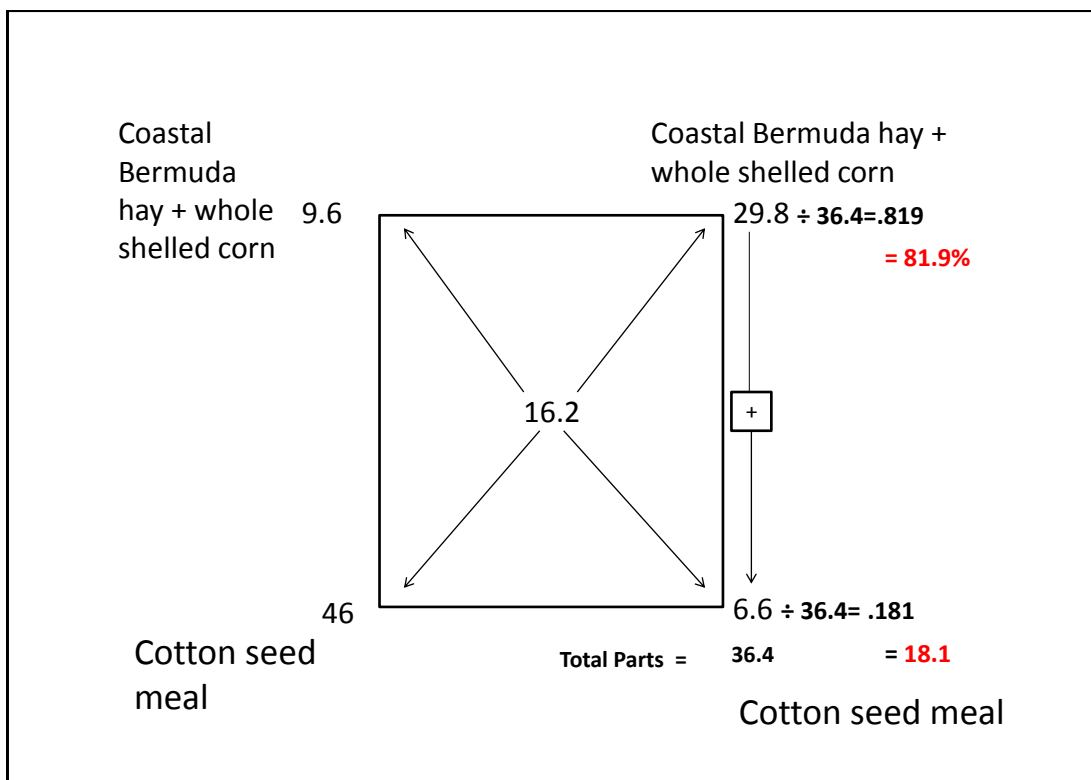


Figure 2. Balancing ration for Crude Protein

**Step 13.** Calculate the pounds of dry matter that each feedstuff contributes to the total ration. Multiply pounds of dry matter required on a daily basis (2.43) by the percentage of the cotton seed meal. The dry matter component made up by cotton seed meal is  $(2.43 \times .181) = 0.1935$  pound. Therefore, the amount of dry matter that should come for coastal bermuda hay/whole shelled corn is  $(2.43 - .1935) = 2.236$  pounds.

**Step 14.** In order to calculate the amount of dry matter from coastal bermuda hay and whole shelled corn, multiply 2.236 by the percentage of coastal bermuda hay and whole shelled corn that were obtained in **Step 5**. We calculated Coastal Bermuda hay was 59.7 % and whole shelled corn was 40.3 % as shown in Figure 1.

Table 4. Calculating the amount of each ingredient

Feedstuff		(Lbs.)
Coastal bermuda hay	$2.236 \times 0.597$	1.335
Whole shelled corn	$2.236 \times 0.404$	0.901
Cotton seed meal		0.1955
Total		2.43

**Step 15.** Feed requirements are expressed on a 100% dry matter, and so the feed supplied must be expressed on a 100% dry matter basis. But Coastal Bermuda hay, whole shelled corn and cotton seed meal have 89, 88 and 92 % DM respectively. Consequently, each feed stuff must be increased in the ration to meet the 100% dry matter requirement. This is done by dividing the amounts for each feed by its respective dry matter percent.

Table 5. Calculating the amounts of ingredients to meet 100% of the animal nutrient requirements

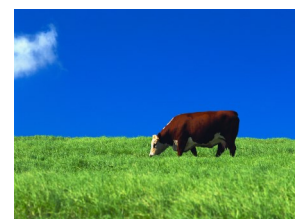
Feedstuff		(Lbs.)
Coastal Bermuda hay	$1.335 \div 0.89$	1.5
Whole shelled corn	$0.903 \div 0.88$	1.026
Cotton seed	$0.195 \div 0.92$	.212
Total		2.738

Table 6. Making a 1000 lbs. of feed

Feedstuff		(Lbs.)
Coastal Bermuda hay	1.5/2.738 X 1000	547.84
Whole shelled corn	1.026/2.738 X 1000	374.72
Cotton seed meal	.212/2.738 X 1000	77.42
Total		1000

## Livestock Calendar for January

- Now is the time to lime if your soil sample recommends liming for spring pastures and hayfields.
- Check and keep mineral feeders full always.
- Check for lice and treat if necessary.
- Control broad-leaved weeds in rye pastures.
- Buy only performance-tested bulls.
- Put bulls with cows now for October calving season.
- Make up breeding herd list if using single-sire herds.
- Watch calves for scours.
- Review herd health program with vet and outline your program.
- Record cow herd heats, breeding abnormalities, difficult calving's, etc...
- Examine bulls for breeding soundness and semen quality before your breeding season.
- Use high magnesium mineral supplement to prevent chance of grass tetany if you have heavily fertilized rye/ryegrass pastures.
- Vaccinate cows and heifers against Vibriosis and Leptospirosis before breeding season.



## Cool season vegetables to plant

Beets, broccoli, cabbage, carrots, cauliflower, celery, Chinese cabbage, kale, leek, mustard, bunching onions, multiplier onions, parsley, English peas, Irish potatoes, radish, rutabaga, and turnips.

## 4-H HAPPENINGS



**January Birthday's:** Lauren Rhodes, Wyatt Lugenbeel, Kelly Denson, Jocelyn Gibson, Jace Bielling, McKenzie Clemons, James Griffis, Cole Crosby, and Alyssa Cason.

**January 10th: 3rd Annual Showmanship Showdown Steer & Heifer** at 9:30AM at the Clay County Fairgrounds. For participation form visit

<http://union.ifas.ufl.edu/documents/2014SteerandHeiferShowmanshipShowdown.pdf> and fax it to Katrina at 904-529-9776.

**January 11th: Swine Showmanship Clinic:** Clay County Fairgrounds at 1:30PM. RSVP to Katrina at [piercek@ufl.edu](mailto:piercek@ufl.edu)

**January 12th: BUSA Meeting** (Not mandatory) at Lake Butler Community Center at 7:00PM. Bring covered dish (meat provided). Please **RSVP by January 5th** to [BUSA2014@gmail.com](mailto:BUSA2014@gmail.com)

**January 24th: Union County Goat Show** at the Union County FFA Barn at 8:00AM.

**County Events Registrations Forms—Due at the office by February 9th. Check with your leader, stop by the office to pick one up or go online and download at**

<http://union.ifas.ufl.edu/documents/CErgissteration.pdf>

**February 21st: 4-H County Events** at 8:00AM, Union County High School. **ALL Record Books due on this day.**

### January 2015

For updates on 4-H Events visit [http://union.ifas.ufl.edu/4-H\\_calendar.shtml](http://union.ifas.ufl.edu/4-H_calendar.shtml)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
				UCEO closed		
4	5	6 Growers & Showers	7	8 Pioneers Club 3:30-5PM	9	10
11	12 BUSA 7PM Lake Butler Community Center Bring covered dish	13	14 Cooking Club Livestock Club	15	16	17
18	19 UCEO closed	20	21 Shooting Sports Club	22	23	24 Goat Show FFA Barn 8 AM
25	26	27	28	29	30	31

# The Real Resolution

By: Samara Deary, FCS Agent I

The year 2014 has really zoomed by, I always like to reflect on the happenings of the year past and reflect on my accomplishments and even those things that I could have given more effort. With the dawn of the New Year here people resort to establishing the traditional New Year's resolution. The question to ask is what is really in a New Year's resolution that is so different than any other goal that we set to accomplish? Webster's Dictionary states that a resolution simply means to find a solution or an answer to a conflict. A conflict is usually something that presents a difference or a struggle of power, which in turn will always cause some type of struggle for one thing to win over the other.

Most New Year's resolutions often deal with making a lifestyle change of some sort to stop smoking, lose weight, exercise more or eat better. Our resolutions sometimes seem to fail because they are dealt with in the sense of a conflict or struggle of power between a weakness or habit over forcing a new change. In order to be successful our lifestyles should never reflect a conflict but rather small simple changes that add up to a complete change in our behaviors. The real resolution does not come with a big goal in mind like wanting world peace. It comes with one simple act at a time that will over all accomplish the bigger goal. The New Year's resolution starts with establishing small steps that are simple to accomplish. For example If I want to drink more water and I usually drink 5 soda's a day. My first goal would be to drink 4 soda's a day and replace one of those with water. Each week I would eliminate a serving of soda until I am drinking water completely. This type of goal setting will reflect a change of habit which in turn creates a lasting lifestyle change. If I would stop drinking soda all together without incorporating water in the process more than likely over time I would resort back to drinking 5 soda's a day. Failure of accomplishing a goal usually creates an attitude of that goal being impossible to complete.

We are all winners in everything that we do!! This year 2015 the real resolution is to make small steps for lasting results in everything we want to accomplish. As the Family and Consumer Science Agent in Union County please feel free to reach out to me as a resource to help with your goals!

## Crock Pot Chicken Taco Chili

### Ingredients:

1/2 onion, chopped	1—8 oz. can black beans
1—8 oz. can kidney beans	1—4 oz. can tomato sauce
1 cup frozen corn kernels	1—14.5 oz. can diced tomatoes w / chilies
1/2 packet taco seasoning	1/2 tbsp. cumin
1/2 tbsp. chili powder	2 -3 boneless chicken breasts
Chili peppers, chopped (optional)	chopped fresh cilantro

### Directions:

**Combine** beans, onion, chili peppers, corn, tomato sauce, cumin, chili powder and taco seasoning in a slow cooker. **Place** chicken on top and cover. **Cook** on low for 10 hours or on high for 6 hours. Half hour before serving, remove chicken and shred. Return chicken to slow cooker and stir in. Top with fresh cilantro. Also try it with low fat cheese and sour cream.



Servings: 5

Size: 1 1/4 cups

Calories: 204

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