

Various Chamoru Cooking Measurements

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Everyone loves to eat. When you go to different places in the world, you want to try the type of food they cook. At times, you want to learn how to cook that certain recipe that you have fallen in love with. In order to ensure that the food is cooked precisely according to the recipe, you need to know what the ingredients are and how much to use.

Looking back on how the Chamorus do their cooking in the past has shown that each cook has a certain way of measuring the ingredients used. The MARC Library in the University of Guam holds various books mentioning Chamoru cooking. In addition, there were several cookbooks. But out of the books I read, only one cookbook has some sort of measurement listed (Guam Women's Club Cookbook, 1955). A picture of the actual measurement list appears (Fig. 1) below. In addition to the measurement list, it also listed what can be substituted (Figs. 2, 3, 4) in case you do not have the right ingredients.

Figure 1

KITCHEN MEASURES

60 drops..... 1 tsp.	4 cups flour..... 1 lb.	2 cups gran. sugar..... 1 lb.
2 tsp..... 1 dessert	2 cups solid meat..... 1 lb.	2 cups butter..... 1 lb.
3 tsp..... 1 Tbsp.	2 medium eggs..... 1 lb.	4 Tbsp. flour..... 1 oz.
4 Tbsp..... 1 cup	2 tsp. butter or salt..... 1 oz.	1 oz. chocolate..... 2 cups
16 Tbsp..... 1 pint	1 oz. bitter chocolate..... 1 oz.	
2 cups..... 1 qt.		
4 pints..... 1 gallon		
4 qts..... 1 lb.		
16 ounces..... 1 lb.		
2 cups liquid..... 1 lb.		

A 13 pound ham will serve 50 people.
 1 pound of tea will make 100 cups.
 1 pound of coffee will make 40 cups.
 3-4 gallons of punch will serve 100 portions.
 1 qt. cream will serve 35-40 people with cream for coffee or tea.
 1 pound loaf sugar equals 100 cubes.
 1 pound of butter makes 35 pats.

Figure 2

"CAN INFORMATION"

<u>CAN SIZE</u>	<u>CONTENTS BY CUPS</u>	<u>USED FOR</u>
#1/4	1/2 cup	Meat spreads, ham, tongue, liver.
#1/2	1 cup	Primarily for salmon.
#1, tall	2 cups	Salmon, fruit cocktail, fruit salads.
#2	2 1/2 cups	Vegetables and fruit juices.
#2 1/2	3 1/2 cups	Fruits, tomatoes, sauerkraut, beets, spinach, pumpkin, et.
#10	13 cups	Juices

Figure 3

SUBSTITUTIONS THAT ARE SAFE

<u>FOR</u>	<u>USE</u>
1 cup sifted all-purpose flour	1 cup, plus 2 Tbsp. sifted cake flo
1 cup sifted cake flour.....	1 cup, minus 2 Tbsp. sifted, all-purpose flour
1 Tbsp. cornstarch (thickening).....	2 Tbsp. flour (approximately)
1 tsp. baking powder.....	$\frac{1}{4}$ tsp. soda, plus $\frac{1}{2}$ tsp. cream of tartar
1 whole egg.....	2 egg yolks, plus 1 Tbsp. water (in cookies, etc.)
1 whole egg.....	2 egg yolks (in custards and such mixtures)
1 cup fresh, sweet milk.....	$\frac{1}{2}$ cup evap. milk, plus $\frac{1}{2}$ cup water
1 cup fresh, sweet milk.....	$\frac{1}{2}$ cup condensed milk, plus $\frac{1}{2}$ cup water (reduce sugar slightly in recipe)
1 cup fresh, sweet milk	4 Tbsp. powdered milk, plus 1 cup water
1 cup fresh, sweet milk.....	1 cup sour milk or buttermilk, plus $\frac{1}{2}$ tsp. soda (decrease baking powder 2 tsp.)

Figure 4

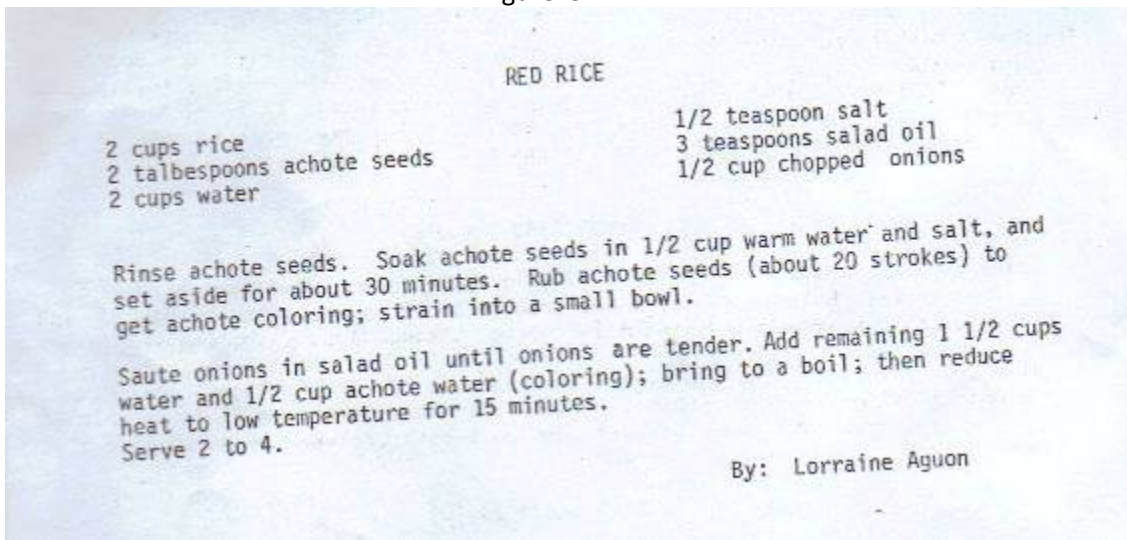
SUBSTITUTIONS THAT ARE SAFE, continued.

<u>FOR</u>	<u>USE</u>
1 cup sour milk or buttermilk.....	1 cup fresh, sweet milk with 1 Tbsp. lemon juice or vinegar stirred in. Let stand 3 minutes.
1 sq. unsweetened chocolate.....	$\frac{3}{4}$ Tbsp. cocoa, plus 1 Tbsp. shortening
1 cup honey.....	$\frac{3}{4}$ cup sugar, plus $\frac{1}{2}$ cup liquid
1 cup sugar.....	1 cup honey or syrup and reduce liquid in recipe $\frac{1}{2}$ cup (in cakes, substitute honey for only half the sugar)
1 cup brown sugar (firmly packed).....	1 cup granulated sugar
1 cup canned tomatoes.....	About 1 $\frac{1}{3}$ cups cut-up fresh tomatoes, simmered 10 minutes

Figs. 1 thru 4 may seem pretty standard but to be the only one found in all the cookbooks reviewed in the MARC Library shows some merit in being mentioned in this research report.

To show that each Chamoru cook was taught differently, the recipe for red rice was selected. In all the books that I was able to read, only one had the red rice recipe. Red rice is one of Guam's famous foods. This recipe was provided by Lorraine Aguon (1962) in the cookbook entitled "Favorite Guam Recipes" (Fig. 5). Please see below:

Figure 5



Red rice is usually cooked for special occasions in the past. Presently, you will be able to get red rice everyday. The Chamoru Village, which serves various Chamoru dishes including red rice, is located in Hagåtña and is open daily.

Connie Garrido (interview, March 10, 2010), lead instructor at Gef Pago Village, demonstrates the steps in cooking red rice for 10-15 people.



Figure 6



Figure 7



Red chili powder

Red chili powder is a common ingredient in many cuisines, particularly in Indian and Mexican dishes. It is made from dried and ground chili peppers, providing a spicy and slightly smoky flavor. It is often used as a seasoning for meats, vegetables, and in the preparation of salsas and curries.



Chopped onions

Chopped onions are a versatile vegetable used in a wide variety of recipes. They add a sharp, pungent flavor and a crunchy texture to dishes. Onions are commonly used in soups, stews, salads, and as a base for many sauces and dressings.



Adding oil to the pan

Adding oil to the pan is a crucial step in cooking, as it provides a medium for heat transfer and helps to prevent food from sticking. The type of oil used can significantly affect the flavor and health properties of the dish.



Stirring onions

Stirring onions in a pan allows them to cook evenly and release their natural sugars, which can be caramelized for a sweeter flavor. This process is often the first step in preparing a base for many dishes.



Garlic cloves

Garlic cloves are a staple ingredient in many cuisines, known for their strong, aromatic flavor. They are often used whole, minced, or crushed to add depth and complexity to a wide range of dishes.



Stirring the mixture

Stirring the mixture of onions and garlic ensures that the flavors are well combined and evenly distributed throughout the dish. This step is essential for achieving the desired taste profile.



Keep the mixture on a low heat until the rest comes out.

Figure 110



Prepare a bowl and strain the mixture through the sieve. This will remove the seeds and any remaining pieces of tomato. You can also use a food processor to blend the mixture until it is smooth.

Figure 111



Transfer the mixture to a clean container. You can use a red container for storage. The mixture can be used immediately or stored in the refrigerator for up to 2 weeks.

Figure 112



Heat the mixture in a large pot over medium heat. Stir the mixture frequently to prevent it from burning. The mixture will thicken as it cooks.

Figure 113



Let the mixture simmer for 10-15 minutes. The mixture will become even thicker. You can adjust the consistency by adding more water or tomato paste. The mixture is now ready to be used in your recipe.

Figure 114



Figure 199

How to prepare the rice. You need to use a half of the amount of rice with equal the amount of water.



Figure 200

Pour the rice into a bowl.



Figure 201

Wash the rice until clear.

This ends the first part of making red rice. The next section will continue on from pouring in the rice into the pot. This time the pot feeds from 15-30 people.



Figure 202

Pour the rice into the pot of boiling red water.



Figure 633

Put the pot on a burner and stir the rice and sauce.



Figure 634

Stir the rice until you see the rice is evenly coated.



Figure 635

Put a banana leaf over the rice and sauce. Place the banana leaf over the rice and sauce to keep the rice and sauce from drying out.



Figure 636

Cover the pot and let it simmer until cooked.

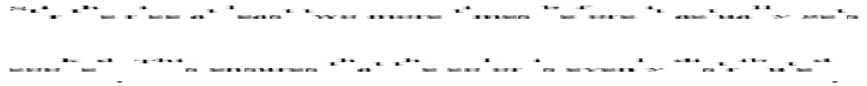


Figure (28)

Here is your rice beautifully cooked in Figure 28.

Measurements used in cooking red rice vary according to the number of people the food is cooked for. Measurement tools (Figs. 29 thru 33) are displayed in Attachment A.

Other red rice recipes are listed in Attachment B. Please note that the recipes are somewhat the same but each cook has individualized the recipe in their own way.

Cooking is a very healthy and enjoyable way to learn about math. Just cook, fill each student with food, and they will learn math easily all based on what they have eaten. What fun!!

References

Guam Women's Club Cookbook (1955). *Cooking Hints*. Guam:

Women's Group For Rudy Sablan And Joe Leon Guerrero. (1962). *Favorite Guam Recipes*. Guam:

Attachment A



Figure (29)



A pin on a palm.

Figure (31)

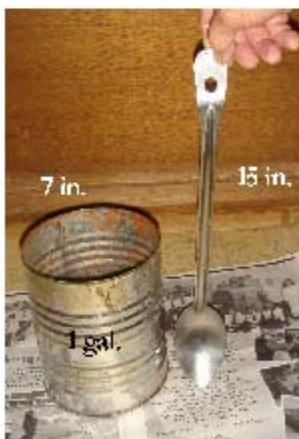


Figure (30)

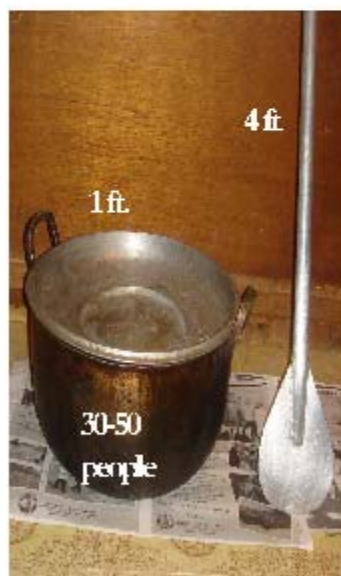


Figure (32)

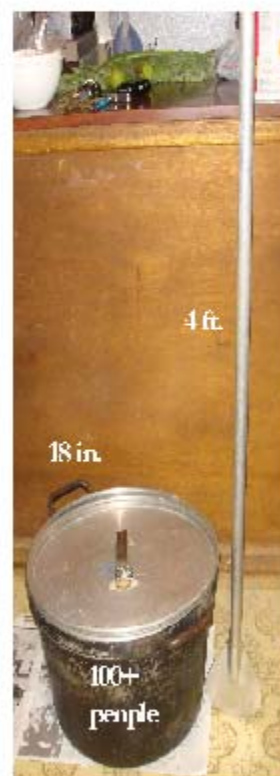


Figure (33)

Attachment B

Red Rice (Antonia Cepeda, Cook's Assistant, Astumbo, Dededo)

- | | |
|------------------|------------------------------------|
| 1 big square pot | 5 cans of #10 rice (wash the rice) |
| 1 onion | ½ cup of salt |
| 1 cup oil | 1 bag of achote |
| 1 pound butter | 5 cans of achote water |
| 1 bag sweet peas | |

Heat the pot. Put the oil down, then onions. Let the onions cook as little then pour the achote water in the big pot. Put your butter in with the achote water, let it boil. Wash your rice. Put the rice in while the water is boiling and the sweet peas. Then cover the pot. Be sure to check on it every 10 minutes. Stir it once or three times until it is cooked.

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Red Rice (Sinora Bertha Lujan, Chamoru Teacher, Ligan Elementary School)

To cook 6 cups of red rice. Soak 1 cup of achote seeds in water. Add about 1 tablespoon of salt to bring out the redness of the seeds to make about 6 cups of achote water. Place pot over heat, add about 2 tablespoons oil and sauté about ½ cup chopped onions. Stir until onions are clear. Add achote water. In a bowl wash 6 cups of rice until rice water is clear. Add washed rice in pot with achote water and stir. Taste if salt is at your desired taste. Let rice boil in achote water then reduce heat to medium high. Cover and let simmer until rice is fluffy.

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Red Rice (Sinora Juanita Manibusan-Manglona, Chamoru Teacher, Ligan Elementary School)

Para Fiesta: Using a large size pot (kaderu). First, measure the amount of rice to be cooked. Five ganta (using #10 can) into a large pan (satten). Second, rinse uncooked rice, set aside. Third, soak water (half ganta) fresh achote, add 2 tablespoons salt. Using your hand rub achote until you have a very strong red color. Measure one ganta achote water. Slice 2 medium onions. Fourth, place pot on gas stove, add ½ cup oil, onions. Saute onions until clear. Add five ganta achote water. Bring to a boil. Pour in five ganta rice. Stir to ensure that the rice is into the achote water. Cover and let simmer. Stir two more times to ensure that the red coloring is spread evenly. Lower heat and let simmer until cooked.

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Red Rice (Sinora Sara Uncangco, Chamoru Teacher, Liguana Elementary School)

First, pre-soak achote seeds about $\frac{3}{4}$ cups for about 1 hour, rinse, add 1 teaspoon of salt to assist in getting coloring off seed. Get at least $\frac{1}{2}$ gallon of colored water. Wash rice and drain completely. Add the colored water about $\frac{1}{2}$ gallon to 8 cups of clean/drained rice. Add $\frac{1}{4}$ cup vegetable oil, 2 tablespoons salt, add $\frac{1}{2}$ cup diced onions. Cook....

Conversion: $\frac{3}{4}$ cup = mas di lamita-tasa

$\frac{1}{4}$ cup = menos di lamita-tasa

1 hr = un ora

$\frac{1}{2}$ cup – lamita-tasa

1 teaspoon = un kuchurita

$\frac{1}{2}$ gallon – lamita gallon

8 cups = ocho tasa

2 tablespoons = dos kuchala

cups = tasa

$\frac{1}{2}$ cups = lamita-tasa

pot = la'uya

tablespoon = kuchala

teaspoon = kucharita

big stirring spoon = kucharon

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