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Buttercup Squash

Its Origin and Use

By A. F. Yeager and
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GOOD SPECIMENS OF BUTTERCUP SQUASH

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Buttercup Squash, Its Origin and Use

By A. F. YEAGER and E. LATZKE

TESTING WORK with all of the more important kinds and varieties of vegetables at the North Dakota Agricultural Experiment Station has indicated that the sweet potato is not a satisfactory crop for this State. Even tho tubers are produced they do not mature well nor have the expected sweet flavor. The same variety testing work, however, has indicated that squashes do exceedingly well in this climate. Insect pests cause less trouble here than farther South and the plants set and mature a good crop in the average season. Therefore, it seemed possible to develop a variety of squash which would take the place of the sweet potato.

In 1922 a squash breeding project was begun. During this and the succeeding 3 years selections were made from the Hubbard variety. Each year from 50 to 100 squashes were selected, a part of each baked, and the seed from those of the best quality saved for planting the following year.

Figure 1. A PISTILLATE (FEMALE) SQUASH BLOSSOM
This may develop into a squash if fertilized by pollenation from a staminate blossom.

In 1925, in a patch of Quality squash, a plant appeared bearing fruits particularly desirable in appearance. When baked, the squashes from this vine proved extraordinarily high in quality. The seed was saved and planted the following year. The crop

produced in 1926 indicated that the plant selected the preceding year was probably the result of an accidental cross between Essex Hybrid and Quality. Some of the squashes carried a hard shell, some soft; some showed orange skin color, some green; some were of considerable size, some small. However, several vines produced fruits which resembled those of the preceding year and maintained the high quality standard. Some of the squashes appeared to be far superior to the best Hubbards and so the Hubbard selection project was abandoned and this new line given all the attention.

Seed from squashes selected by baking tests was again planted in 1927 and many selfed fruits were produced. From the mixture, a type similar to that which now characterizes the Buttercup variety was selected. These were from 3 to 5 pounds in size, turban shaped, with dark-green, smooth skin which was thin and tough. The flesh was orange, dry and sweet. This turban shape was chosen because it made possible a small-sized squash with thick flesh.

In 1928 the selfing was continued, and the assistance of the Home Economics Research Department secured to help with the baking tests.

Figure 2. A STAMINATE (MALE) SQUASH BLOSSOM
This produces pollen only, hence can never develop into a squash.

The best method of growing these squashes has been to plant the seed from each individual squash in a row by itself and then separate it from the rows on either side by four rows of early sweet corn. The vacant space left for the squash is three corn rows in width. It has been found that early sweet corn acts as a

windbreak to prevent the squash vines from blowing about, and as soon as they begin to run it actually holds the plants in place. Plantings of squash have usually been made the first week in June. As soon as the plants begin to blossom, an attempt is made to self-fertilize at least one squash blossom on each plant. Experience has shown that it is necessary to do the pollenizing before nine o'clock in the morning, otherwise the blossoms fail to set. In order to prevent the bees from causing cross pollination, rubber bands or strings are put around the nearly-open blossoms in the afternoon. The following morning the bands are removed and the pollinating done. The pistillate blossom is immediately tied up again to prevent contamination.

The baking tests were carried out in the following manner: Groups of from 10 to 15 squashes were baked at one time. Wedge-shaped pieces weighing 12 ounces, which would approximate individual servings, were cut from each squash. The seeds and fibrous material were removed, but the samples were not washed. Samples were placed directly on the rack of regulated ovens preheated to 400°F. and baked 60 minutes at this temperature. The same number of samples were baked in each oven. When done, the samples were broken at once and, without the addition of any seasoning, were scored by from three to six judges. The score card used was as follows:

I. TEXTURE 30

Description	Value
Very dry	10
Dry	20
Moderately dry, mealy	30
Slightly moist	20
Very moist	10

II. SWEETNESS 20

Description	Value
Very sweet	10
Sweet	15
Moderately sweet	20
Sweetness just perceptible	15
No sweetness perceptible	10

III. SQUASH FLAVOR 30

Description	Value
Very strong	10
Strong	20
Moderate	30
Slightly mild	20
Very mild	10

IV. DEPTH OF FLESH 10

Description	Value
Very thick	10
Moderately thick	9
Medium	8
Moderately thin	7
Thin	5

V. COLOR ORANGE 10

VI. FINAL RATING 100

Terms descriptive of the sample were checked and numerical scores recorded. Surprisingly good agreement was found between judges when the score card was used, but there was some difference in the preference of the judges as to color of flesh. Obviously, only one color could be selected, hence the color most generally liked was located on the color chart. It was found to be deep cadmium yellow, which is number 2 on page 48 of "Reportoire de Coleurs," by Obertheir and Danthenay. Thereafter, color was graded by comparison with the color standard. It was necessary for squashes from which seed was to be saved to score 90 percent, or near that in order to qualify.

It was then thought possible to judge other characteristics by more exact methods than that of personal judgment. Hence, in 1929, the assistance of the Agricultural Chemistry Department was secured. They determined the dry matter content and made analyses of raw squashes, samples of each of which were baked. The following table gives the average percentage composition of 40 squashes, as furnished by T. H. Hopper, of the Agricultural Chemistry Department.

TABLE 1. ANALYSIS OF RAW SQUASH

Percent Water	Percent Dry Matter	Percent Crude Protein	Percent Reducing Sugar	Percent Total Sugar	Percent Sucrose
84.5	*15.5	1.13	5.72	7.30	1.49

*In 1929, dry matter averaged much lower than in 1930. See Table 4.

A comparison between the scores, as given by the judges after the squashes were baked, and the chemical analyses shows the following correlations:

TABLE 2. CORRELATION BETWEEN CHEMICAL COMPOSITION AND COOKING QUALITY OF BUTTERCUP SQUASH, 1929*

Analysis of		Score for	Correlation Coefficient
Dry matter	and	Texture	.959
Dry matter	"	High quality	.873
Sucrose	"	High quality	.718
Sucrose	"	Sweetness	.717
Total sugars	"	High quality	.630
Protein	"	Texture	.197
Protein	"	Quality	.172
Protein	"	Good flavor	.112
Reducing sugar	"	Texture	.038
Reducing sugar	"	Good flavor	.034
Reducing sugar	"	High quality	.0045
Total sugar	"	Sweetness	.642
Sucrose	"	Analysis dry matter	.644

*Correlations calculated by method described in "Correlation and Machine Calculation" by Wallace and Snedecor—1931.

These correlations, based on 31 specimens, indicated that dry matter content was the most important single factor affecting quality. To check this, however, the dry matter content of a still larger number of specimens was taken in 1930. Cooking tests for this group of squashes were run in a slightly different fashion. Three hundred ten samples were analyzed for dry matter and showed a range of percentage from 9 to 28 percent. Of the total number, 78 percent had a dry matter content ranging from 15 to 22 percent, while 37 percent of the total number had a dry matter content of from 17 to 20 percent. Four groups of squash samples having the widest possible range of dry matter were baked by the standard method and scored. This series showed that low dry matter usually brought low scores for quality. Thereafter, only squashes having a dry matter content of 17 percent or above were baked for judging. The results from these baking tests for quality are summarized in Table 3.

Figure 3. A PISTILLATE SQUASH BLOSSOM TIED SHUT
Closing the blossom in this way will prevent accidental insect pollenation.

TABLE 3. RELATION OF PERCENTAGE OF DRY MATTER IN RAW BUTTERCUP SQUASHES TO SCORES FOR TEXTURE, SWEETNESS, FLAVOR AND QUALITY WHEN BAKED IN 1930.

Number Samples	Percent Dry Matter	Texture (Possible score 30)	Sweetness (Possible score 20)	Squash Flavor (Possible score 30)	Total score for quality (Possible 100)		Probable Error
1	9	13.75	13.75	13.75	48.2		
2	10	16.25	15.62	21.25	66.9		
1	11	12.50	13.75	10.00	47.5	60.4	4.4
1	12	13.75	16.75	20.00	62.7		
1	13	16.75	18.75	21.75	74.2		
4	14	17.50	15.75	16.65	64.5	67.9	2.2
4	15	18.56	15.43	19.18	69.5		
9	16	19.11	16.30	19.29	71.21		1.2
25	17	21.76	16.42	22.35	77.28		1.2
37	18	24.81	17.11	23.53	82.98		.8
32	19	23.76	17.25	22.13	79 31		1.0
22	20	24.80	16.15	21.76	79.53		1.4
24	21	25.29	16.50	24.48	82.43		1.0
23	22	23.85	16.73	22.97	79.46		1.2
10	23	24.26	16.61	22.18	78.67		2.2
4	24	21.25	16.00	22.37	76.65		1.6
3	25	17.66	15.33	22.08	72.00		
1	26	23.75	18.00	22.50	80.50		
0	27	.....	.....	.....	.....	73.8	1.4
1	28	21.66	16.66	16.66	71.66		

It is evident from this table that a dry matter content of not less than 17 percent is usually necessary for a squash to be of high quality. For those accustomed to reading graphs, this is shown

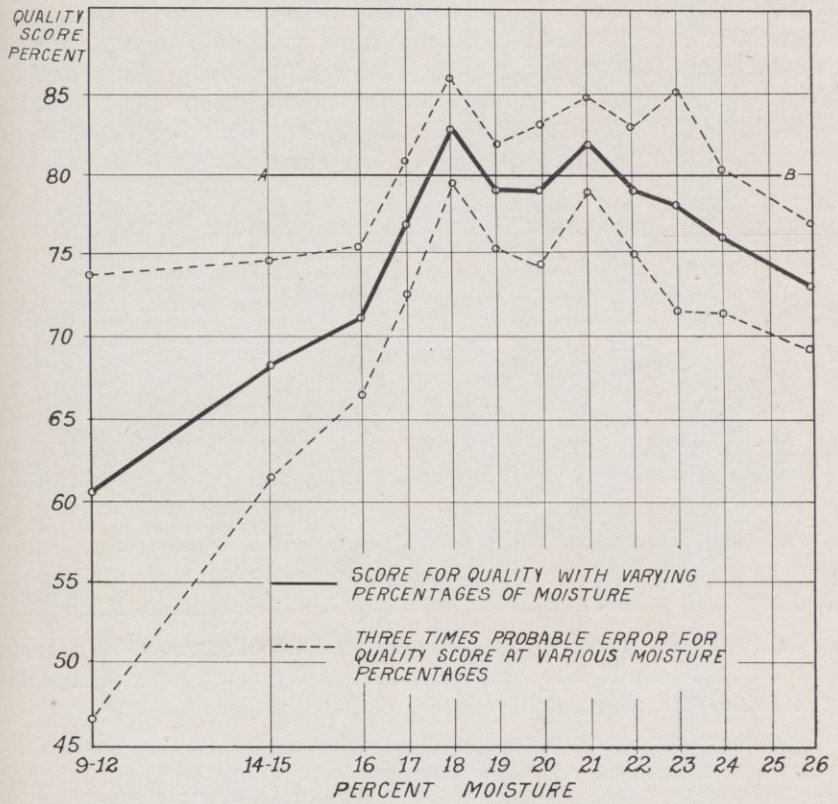

Figure 4. GRAPH SHOWING THE EFFECT OF DRY MATTER ON QUALITY

The horizontal line A————B, arbitrarily drawn at 80 percent, passes above the point of three times the probable error below the 18 percent mean score. Hence, there is some possibility that the mean score for squashes with 18 percent dry matter might, in another sample, be below this line. The point of three times the probable error above the mean score for quality of squashes with 17, 19, 20, 21, 22, 23 and 24 percent dry matter falls above the line A————B. Hence, there is a possibility that the means for these dry matter percentages might possibly come above 80 percent, and that other samples containing from 17 to 24 percent moisture might all have the same quality score, tho there is an apparent downward trend in quality beginning at 18 percent. Squashes with less than 17 percent and more than 24 percent moisture are definitely inferior in quality, since the point of three times the probable error above the mean score falls below the line A————B.

more clearly in Figure 4. This graph also indicates that those with a dry matter content above 24 percent were significantly inferior in quality.

In order to determine the effect of maturity on composition, squashes on several plants were marked with a date label when the blossoms were open. Table 4 gives analyses of several such squashes.

All were harvested September 11, 1930, at which time those marked August 21 were 3 weeks old, and those marked August 14 were 4 weeks old. This table indicates that the squashes which had set 3 weeks had almost reached mature composition and that the difference between vines was much greater than differences between the various aged squashes on the same plant.

TABLE 4. THE COMPOSITION OF FRESH WHOLE BUTTERCUP SQUASH FROM FOUR DIFFERENT PLANTS IN 1930 WHEN HARVESTED SEPTEMBER 11 AT VARYING STAGES OF MATURITY.

Plant No.	Date of blossom setting	Percent Moisture	Percent Ash	Percent Crude protein (Nx6 .25)	Percent Ether extract	Percent Crude fiber	Percent Nitrogen free extract	Percent Reducing sugars (invert)	Percent Total sugars (invert)	Percent Starch
5	July 31	75.00	1.12	2.70	.43	1.40	19.35	1.70	4.91	12.98
	Aug. 7	72.12	1.11	3.21	.41	1.34	21.81	1.35	4.85	15.62
	Aug. 14	71.56	1.04	2.76	.36	1.31	22.97	1.69	4.49	16.86
	Aug. 21	73.57	.90	2.46	.30	1.24	21.53	2.44	4.58	15.35
11	Aug. 7	80.86	.90	1.95	.36	1.14	14.79	3.84	6.11	7.60
	Aug. 14	80.54	.93	2.10	.41	1.12	14.90	3.19	5.28	8.49
	Aug. 21	80.95	.77	1.68	.35	1.10	15.15	3.73	5.30	8.75
12	Aug. 7	74.63	.83	2.16	.37	1.45	20.56	4.09	7.08	11.69
	Aug. 14	75.89	.80	1.82	.34	1.44	19.71	4.67	7.15	10.87
	Aug. 21	76.42	.82	1.94	.33	1.39	19.10	3.85	5.70	11.71
19	July 31	74.30	1.44	2.71	.50	1.57	19.48	1.55	7.58	10.21
	Aug. 14	73.72	1.21	2.44	.24	1.49	20.90	2.65	6.20	12.67

In 1931, the usual method of planting was followed. Analyses were not made that year because an untimely frost before September 1 killed the immature vines.

In order to make comparisons with standard varieties, Buttercup and a number of other varieties were planted several miles away from the breeding patch. Comparative baking tests of all the varieties were run in the fall. Table 5 gives the average of three judges' scores, with 100 percent as the highest possible score.

TABLE 5. A COMPARISON FOR QUALITY OF BAKED SQUASH, BETWEEN BUTTERCUP AND OTHER VARIETIES GROWN UNDER SIMILAR CONDITIONS IN 1931. TWO OF THE MOST MATURE SQUASHES OF EACH VARIETY WERE USED AS A UNIT.

Variety	Score	Percentage Baking loss
Buttercup	93.3	26.98
Delicious	84.2	27.23
True Hubbard	78.8	27.17
Warted Hubbard	74.5	27.01
Kitchenette	73.8	30.50
Des Moines	70.0	34.07
Golden Hubbard	69.1	34.50
Boston Marrow	65.0	32.58
Sourise	48.9	33.10

A comparison between Buttercup and Hubbard bought at the market gave the following results as regards amount of waste. Equal weights of raw squash were taken. This required three Buttercup squash to one Hubbard.

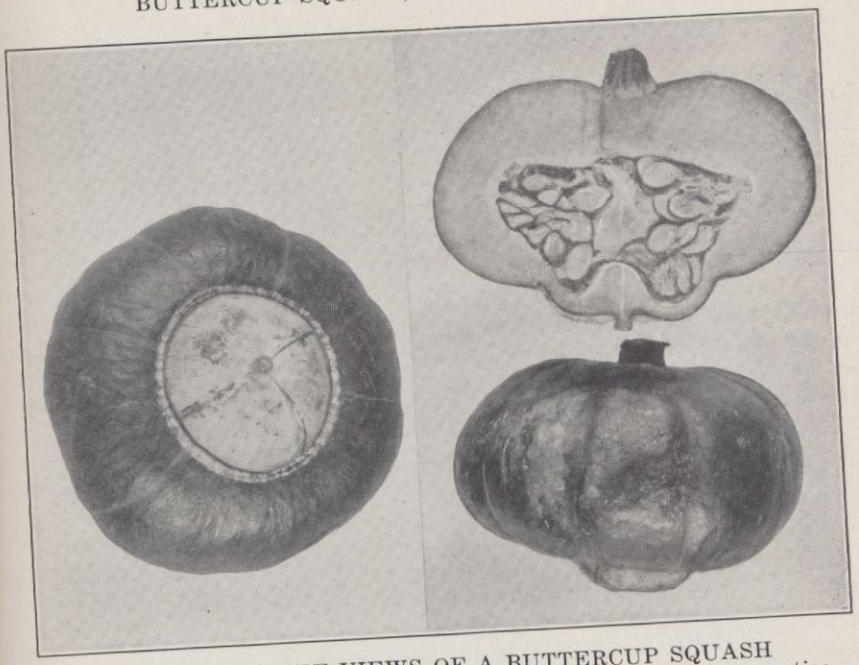

Figure 5. THREE VIEWS OF A BUTTERCUP SQUASH
Note the characteristic turban shape. In the cut specimen notice the thin skin, thick flesh at the stem end, and collection of seed at the other end. Note the thin, easily-cut flesh layer covering them.

TABLE 6. PERCENT OF WASTE IN BUTTERCUP SQUASH AS COMPARED TO HUBBARD IN 1931.

	Hubbard	Buttercup
Edible portion raw	68.78	79.46
Total waste	31.22	20.54
Percentage seed waste	7.21	7.32
Percentage skin waste	24.01	13.22
Percentage loss in steaming	17.71	9.16

The above comparative cooking tests are offered only as a single set of trials in one season; as such, they are suggestive of the possible superiority of Buttercup in quality for our conditions.

An examination of the seed saved for 1932 shows that it has all descended from the seed of three squashes planted in 1929, the progeny of these three remaining after rigorous selection that year and in 1930.

The purification of this squash has been found to be the most difficult of any crop thus far worked with. Even yet there are occasional off-types. Still greater uniformity can be secured by a continuation of selfing, chemical tests, baking tests, and selection. In the meantime, gardeners in the North should have the benefit of the work to date, hence the product has been released under the name "Buttercup." Reports from gardeners who have tried it are generally very favorable.

COOKING AND CANNING BUTTERCUP SQUASH

Buttercup squash is offered as a tasty addition to the rather limited variety of winter vegetables available in the northern states. This variety has been developed with the housewife's particular needs in mind.

Each squash weighs from 3 to 3½ pounds, just enough to serve five or six people at one meal without necessitating the use of leftovers.

The rind is comparatively thin and easy to remove. By carving out the small turban-like section at the bud end, the squash may be cut either into pieces or thin slices and easily peeled for steaming or canning, or the seeds may be removed and the squash left whole for baking.

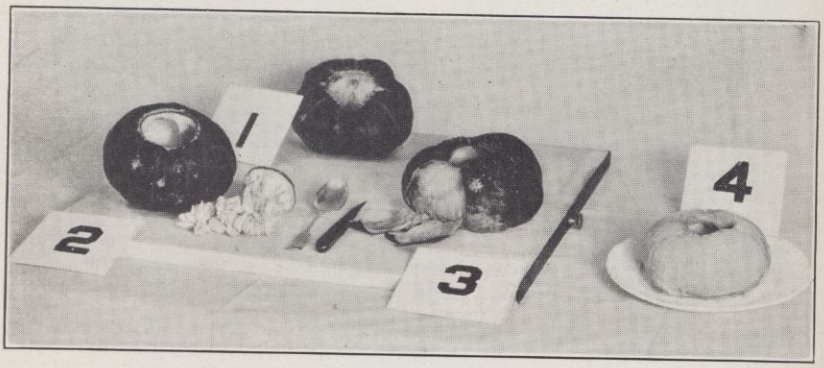

Figure 6. PREPARING A BUTTERCUP SQUASH
1—whole raw, 2—seed removed, 3—baked, 4—peeled.

The seeds and fibrous material are small in amount, leaving a thick orange flesh. Buttercup squash has less waste due to skin and seeds than many other varieties. About 20 percent of a Buttercup squash is discarded as unedible, whereas 30 percent and more of many other varieties is wasted in preparation.

The flavor of Buttercup squash is mild and sweet and the texture smooth and comparatively dry.

Factors which describe "quality" in squash to most people combine a fairly dry, mealy texture, no coarse fibrous section, a better than moderate degree of sweetness, a flavor distinctive of squash but not strong, and a deep, rich, orange flesh untinged by green. Buttercup seems to combine all these qualities.

Interesting flavor combinations with squash include pork of almost any kind, fresh, smoked, or sausage; such vegetable flavors as green pepper, onion, celery and chives; and tart fruit flavors such as apples or prunes without sugar. If the squash is particularly mild, brown sugar and butter and spices may be used as flavoring. It is unnecessary, however, to add other flavors to

enhance the squash flavor. Nothing is more delicious than plain baked squash with plenty of fresh butter.

FOOD VALUE OF SQUASH

Squash falls into the group of vegetables with carrots, rutabagas, parsnips and turnips as a food supplying starch and sugar for energy, considerable bulk, vitamins, and a fair amount of minerals.

Since squash contains about 10 percent of energy food in the form of starch and sugar, it is used in the meal as a starchy vegetable in place of potatoes.

Like most other yellow vegetables, squash is a good source of vitamin A. This is the vitamin needed to guard against infections of all kinds, including colds, and to promote growth. Squash should hold a prominent place along with carrots, eggs, and butter, in the winter diet, as a source of this necessary food substance. Little work has been done as yet to determine the value of squash as a source of the other vitamins, but preliminary tests made in the animal laboratory at the North Dakota Experiment Station show Buttercup squash to be a source of vitamin B as well as vitamin A. The mineral content of squash, while not outstanding, is worthy of mention for its calcium, phosphorus and iron. All vegetables supply the body with bulk or roughage, which is valuable in keeping the digestive tract in condition.

COOKING METHODS

Two general methods of cooking are recommended for squash: Baking and steaming. Both these methods retain the original food

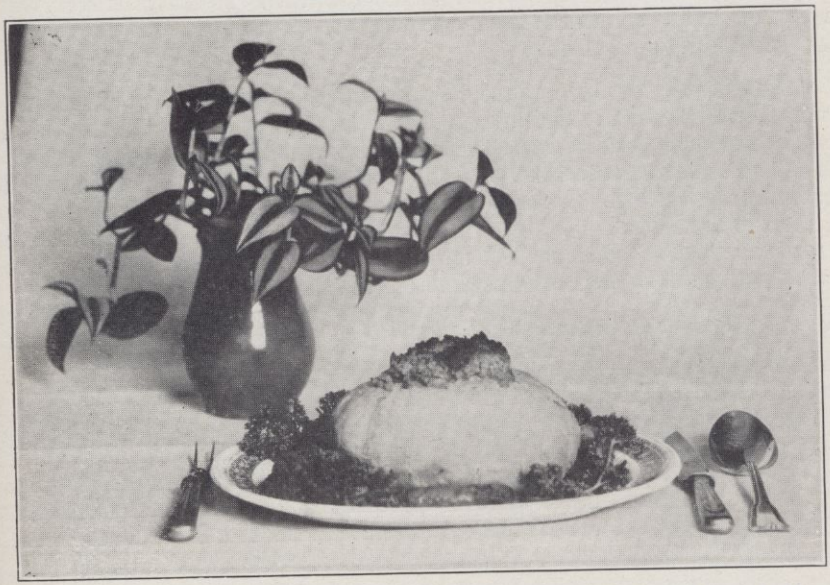

Figure 7. A BUTTERCUP SQUASH STUFFED WITH SAUSAGE AND BAKED

value of the vegetable and all the natural flavor as well. Boiling, as a method of cooking, is not desirable.

Buttercup squash may be baked either whole or in individual pieces. If the squash is to be baked in individual pieces, cut it in half from the bud to the stem end, remove the seeds and fibrous portion, and cut each half into wedge-shaped pieces of 10 to 12 ounces in weight. Place the pieces in the middle of an oven pre-heated to 400°F. (moderate), directly on the rack, or on a pan, and allow them to bake for one hour at this temperature. Remove from the oven and break the crust which forms by pricking with a fork as is done with a baked potato. This prevents sogginess by allowing the steam to escape.

If the squash is to be baked whole, wash it, and with a sharp knife remove the small turban-like section around the bud end, making an opening 3 to 4 inches across. Remove the seeds and fibrous portion with a spoon. With a skewer or small knife, make two or three small holes in the bottom of the squash to allow for the escape of juices which gather in the hollow of the squash and tend to make a soggy product. Place in a 400°F. oven with a pan to catch the drippings and bake from 70 to 80 minutes. The time of baking will depend upon the thickness of the flesh. When done, remove from the oven, place on a hot plate and peel back the green rind before serving. Many interesting dishes may be prepared with this whole baked squash as a foundation.

Before the baking temperature of 400°F. for one hour was decided upon as desirable for use in baking squash, trials were made of even temperatures ranging from 350°F. to 450°F. for varying lengths of time.

At 450°F. for 50 minutes' baking, the product, tho sufficiently cooked, had formed too hard a crust to be appetizing. At 425°F. for 55 minutes, the same condition existed but to a lesser degree. At 350°F. it was necessary to cook the squash for 80 minutes to sufficiently bake it. Losses due to evaporation of moisture as the squash bakes varied only slightly as a result of different oven temperatures, so that no particular temperature tried could be said to have any advantage in respect to losses.

TABLE 7. EFFECT OF BAKING BUTTERCUP SQUASH AT VARYING TEMPERATURES ON LOSSES AND TABLE QUALITY.

Series	450°F. 50 min.		425°F. 55 min.		400°F. 60 min.		*350°F. 70 min.		350°F. 80 min.	
	Percent Loss	** Rank	Percent Loss	Rank	Percent Loss	Rank	Percent Loss	Rank	Percent Loss	Rank
I	24.5	3	31.3	2	33.1	1	33.8	4		
II					24.1	2				
III	38.07	2			34.74	1	36.04	3	24.7	1
IV	28.04	3			25.43	1			28.15	2

*Samples cooked at 350°F. for 70 minutes were considered slightly underdone.

**Rank is marked numerically in order of desirability: 1—best liked, 2—second best liked, 3—third best liked, etc.

All samples in the same series were from the same squashes. Individual squashes varied considerably more in losses due to baking, as indicated in Table 7, than due to oven temperature.

Since the external appearance of squash baked at a higher temperature than 400°F. was undesirable, and since cooking time of 80 minutes necessary for the 350°F. oven seems an unnecessary use of time and fuel, it is recommended that the 400°F. oven for 60 minutes be used as the standard time and temperature. The lower temperature could be used successfully with a coal range or when other products are cooking at 350°F.

Figure 8. SQUASH CUSTARD

Squash may be baked very successfully by cutting it into cubes, peeling it and placing it in a covered casserole or baking dish with seasoning and butter. It will bake done in 45 minutes if the oven temperature is 450°F. or in 55 minutes if the temperature is 400°F. There is no drying of the product as it bakes but the result more nearly resembles steamed squash than baked squash.

STEAMED SQUASH

Squash should always be peeled before steaming to avoid the strong flavor which is absorbed from the rind. Cut the squash in slices not thicker than one-half to three-fourths inch, peel and remove seeds. Place the slices in the steamer top or in a wire basket suspended over a pan of boiling water, season with salt, cover closely and let steam 10 minutes for thin slices or 15 minutes for thicker slices. The steamed squash should be tender but still retain its shape, and may be served in whole slices or mashed and seasoned with salt and butter. If desired, the squash for steaming may be cut into pieces large enough for individual servings and steamed 30 minutes.

Steamed squash is slightly more moist than baked squash but lends itself to mashing for casserole dishes of various sorts, besides

many baked products in which squash is substituted for part of the flour.

RECIPES

SQUASH AS A VEGETABLE

Baked Squash with Pork Chops

1 Buttercup Squash
6 loin pork chops cut thick
Salt, pepper

Arrange the chops on a rack in a shallow baking pan. Season with salt and pepper. Cut the squash into individual servings, and remove seeds and skin. Place the squash squares on top the pork chops, season with salt and bake in a 400°F. oven for 60 minutes. A little water under the rack in the baking pan will prevent the chops from drying as they cook. This combination is especially delicious served with crabapple pickles or pan-fried apple slices. Sage makes a desirable seasoning for the pork.

Whole Stuffed Squash

1 Buttercup Squash
1½ cups dry ground bread crumbs
1/3 cup boiling water
Salt, pepper, paprika
1 pound pork sausage, either link or bulk

Prepare the squash by washing, cutting out the thin part at the bud end and removing the seeds. Partially fry one-half of the pork sausage. Discard part of the fat which fries out. Mix the partially cooked meat, bread crumbs, seasonings and enough water to form a dry dressing. Fill the cavity of the squash with the dressing, set it into a baking pan and bake 70 to 80 minutes at 400°F. The dressing will become moist as the juices of the squash cook into it.

When done, remove from the oven and peel back the rind which is now easily removed in strips. Serve on a chop plate with other small sausage cakes or links arranged around it, and garnish with parsley.

Whole Glazed Squash

1 Buttercup squash
¾ cup brown sugar
3 tablespoonfuls butter
1 tablespoonful water

Prepare the squash as directed for whole baked squash. When cooked, peel back the rind and remove it. Make a heavy syrup of the sugar, butter and water by boiling it slowly 3 or 4 minutes. Apply the syrup to all sides of the peeled squash, return it to the oven and bake for an additional 15 minutes to form a glazed surface. This dish is delicious served with English bacon or thin slices of ham.

Mashed Squash with Bacon

Cut one Buttercup squash into slices about ½ inch thick, peel and steam 10 to 15 minutes. Mash thoroly and beat smooth with 2 tablespoonfuls of butter, and salt and pepper to season. Heap the mashed squash into a baking dish, cover the top with strips of bacon and bake on the top shelf of the oven set at 425°F. until bacon is crisp.

Squash with Apple Sauce and Marshmallows

1 Buttercup squash
2 apples
8 to 10 marshmallows
2 tablespoonfuls sugar
¼ teaspoonful salt
2 tablespoonfuls butter

Steam the squash and mash with butter. Cut apples in slices and cook till tender with the addition of the small amount of sugar and as little water as possible. Mix the mashed squash and the cooked apple, place in a baking dish and dot the top with marshmallows. Bake in a 400°F. oven until the product is heated thru and marshmallows are brown and fluffy. The time required is from 15 to 20 minutes.

Squash Vegetable Scallop

1 Buttercup squash
1 small onion
1 green pepper
½ cup bread crumbs
2 tablespoonfuls butter
Salt, pepper, paprika

Peel, steam and mash the squash. Cut the onion and green pepper fine and brown in the butter. Add to the squash and season with salt, pepper and paprika. Turn the mixture into a baking dish and cover the top with buttered crumbs. Bake 20 minutes in a 400°F. oven or until a golden brown.

Squash Cheese Souffle

2 cups mashed squash
½ cup cream
2 eggs
2 tablespoonfuls butter
½ cup grated cheese
Seasonings

Mix the mashed squash with the cream, cheese and seasonings. Add the well beaten egg yolks. Beat the egg whites until stiff but not dry, and fold them carefully into the squash mixture. Pour into a well oiled baking dish set in a pan of hot water and bake at 350°F. for 40 minutes, or until a knife inserted in the product comes out clean. Serve at once. The amount of cream will need to be varied according to the dryness or moistness of the squash used.

Squash and Ham Casserole

1 Buttercup squash
¾ pound smoked ham

Cut the raw squash into small cubes about one inch in size. Cut the ham in similar size cubes. Mix the meat and squash cubes together in a casserole, being sure that the ham is covered with squash to prevent drying. Cover and bake 30 minutes at 400°F., then uncover and continue the baking for another 20 minutes. No seasonings are needed.

Squash Baked with Prunes

1 Buttercup squash
½ pound prunes
¼ teaspoonful salt
2 or 3 tablespoonfuls brown sugar

Cut the squash into slices and steam 10 minutes. Arrange in a casserole in alternating layers with tart prunes, cooked without sugar and stoned. Use small amounts of brown sugar for seasoning. Bake, uncovered, in a 400°F. oven for 30 minutes or until the squash is thoroly tender.

Scalloped Squash and Apples

1 small Buttercup squash
3 tart apples
2 tablespoonfuls brown sugar
¼ teaspoonful salt
2 tablespoonfuls butter
½ cup bread crumbs

In a baking dish arrange alternate layers of raw squash cut into thin slices and raw, tart apple slices. Season each layer with a little brown sugar, salt and dots of butter. Cover the top with buttered bread crumbs and bake at 400°F. for 60 minutes or until the vegetable and fruit are tender and the crumbs brown. This recipe requires a very mild-flavored squash.

Squash Slices Sauteed in Butter

Cut Buttercup squash in slices ½ inch thick, cutting from stem end to bud end of squash to form crescent shaped pieces. Saute in butter in a frying pan for 15 minutes, or until golden brown and tender. Season with salt. Serve.

Squash Slices, Deep Fat Fried

Dip one-half inch slices of raw squash in egg, then in fine bread crumbs and fry in deep fat until a golden brown. These squash slices are particularly attractive to use on a luncheon or dinner plate with a creamed or roasted meat and a crisp salad.

Glazed Squash Slices

Raw slices of squash, one-half inch thick, may be dipped in a heavy syrup of brown sugar, butter, and water such as is used for glazing whole squash, and baked slowly at 375°F. for 30 to 40 minutes, or until the slices are thoroly cooked and glazed.

Figure 9. SQUASH PIE

Squash in Desserts and Baked Products

Altho squash is most desirable as a vegetable, steamed or canned squash may be used in a variety of ways in baked products, including some delicious desserts. As a pie filling it so nearly resembles pumpkin as to be entirely interchangeable with it.

Small amounts of squash, such as are often left over, may be utilized in doughnuts, biscuits and cookies in place of part of the flour, with excellent results, and give an interesting variety in flavor. Raw grated squash may be used in a steamed suet pudding to grace the Christmas dinner at its close, or, cooked with chicken broth and seasoned with onion juice, it provides a delicious soup to start the gala meal.

Some proven recipes for use of squash in baked products are included.

Squash Pie

Crust for 1 pie

1½ cups mashed squash
1¾ cups milk
2 eggs
2/3 cup brown sugar
¾ teaspoon cinnamon
½ teaspoon ginger
¾ teaspoon salt
½ cup nuts if desired

Mix sugar, spices, and add squash and milk. Add beaten egg yolks and melted butter. Beat egg whites until almost stiff and fold into the mixture. Pour into the pie crust and bake at 450°F. for 20 minutes to set the crust, then at 350°F. for 30 minutes longer. The pie is done when a knife inserted into the filling comes out clean.

Orange Squash Custard

1½ cups mashed squash
1 teaspoon cinnamon
½ teaspoon ginger
1 cup brown sugar
1½ cups milk
2 eggs
Juice of 1 orange
Grated rind of 1 orange
1 teaspoon salt

Mix the dry ingredients, add the squash, milk, orange juice, grated rind and beaten eggs. Pour into well oiled ramekins or into one large pudding dish. Set the ramekins in hot water and bake at 350°F. until a knife inserted comes out clean. Serve with whipped cream and nuts.

Squash Doughnuts

1 cup mashed squash
½ cup milk
¼ teaspoonful salt
1½ tablespoonfuls butter
2 eggs
1 cup sugar
4 teaspoonfuls baking powder
4 cups flour
¼ teaspoonful cinnamon

Cream the fat, add the sugar, squash and egg. Add the sifted dry ingredients and the milk alternately until all is added. The dough formed should be soft and tender. Pat out the dough on a lightly floured board to ½ inch thickness and cut. Fry doughnuts in deep fat at a temperature of 375°F. This is especially tasty when served hot.

Squash Muffins

¼ cup butter
3 tablespoonfuls brown sugar
½ teaspoonful salt
3 teaspoonfuls baking powder
1¾ cups flour
1 egg
½ cup mashed squash
¾ cup milk
¼ cup dried cut prunes

Sift together the dry ingredients. Mix wet ingredients and add melted fat. Pour the liquid into the dry ingredients, stirring very little and leaving the batter slightly uneven in appearance. Add the dried prunes cut small. Bake at 400°F. for 25 minutes in well oiled muffin pans.

Squash Biscuit—Yeast leavened

½ cake yeast
½ cup warm water
1 cup sifted squash
2/3 cup brown sugar
½ cup melted butter
1 cup scalded milk
6 cups bread flour
1 teaspoonful salt

Mix the yeast and warm water, add the squash, salt, sugar, milk which has been scalded and then cooled, and flour to make a soft dough. Knead 10 minutes, then let stand in a warm place over night to rise. Knead slightly and pat out the dough to one inch in thickness and cut with round cutter. Set biscuits close together on an oiled baking pan and let rise to double the bulk. Bake 25 minutes at 400°F. This bread has a deep yellow color, a good flavor and will keep moist longer than some yeast breads.

Steamed Suet Pudding

1 1/3 cups brown sugar
¾ cup suet chopped fine
1 cup grated raw potato
1 cup grated raw squash
1 cup mixed dried fruits—dried apricots, currants, candied orange peel and citron
1 cup flour—half white, half whole wheat
2 teaspoonfuls soda
1/3 teaspoonful cinnamon
1/3 teaspoonful salt
1/6 teaspoonful cloves
2 teaspoonfuls baking powder

Mix the sugar, grated raw vegetables, suet and chopped fruits. Sift dry ingredients and combine with this mixture. Pour into well oiled, covered pudding cans about the size of pound baking powder cans, cover closely, set in a kettle of boiling water, cover closely and let steam for 2 hours. Serve with hard sauce or vanilla sauce.

CANNING SQUASH

Altho fresh squash may be kept successfully over the winter by storing in a cool dry place, it is often convenient to have a supply of the canned vegetable which is ready to season and serve when guests arrive unexpected. The following is a satisfactory method of canning:

Choose firm, well-matured squashes. Wash, cut in strips about one inch wide, and remove the seeds, skin and fiber. Cut into cubes of one inch or smaller and pack raw into clean glass or tin containers. Add one teaspoonful salt per quart, or ½ teaspoonful to each No. 2 tin can. No water is needed. Seal and process in the pressure cooker at 10 pounds pressure for 40 minutes. If tin cans are used, the steam may be released at once and cans may be

removed from the cooker and placed in cold water to stop the cooking. If glass jars are used the pressure gauge on the cooker must be allowed to return to zero without opening the petcock. Then the jars are removed and completely sealed.

The canned product may be served just as it comes from the can, heated and seasoned, or it may be mashed and used in souffles, casserole dishes or for pie filling.

If desired, the squash may be partially steamed, then mashed, and packed for canning. This method conserves space in the jars but requires a longer time in preparation than the method utilizing the raw squash. Time and pressure for processing remains 40 minutes at 10 pounds pressure.