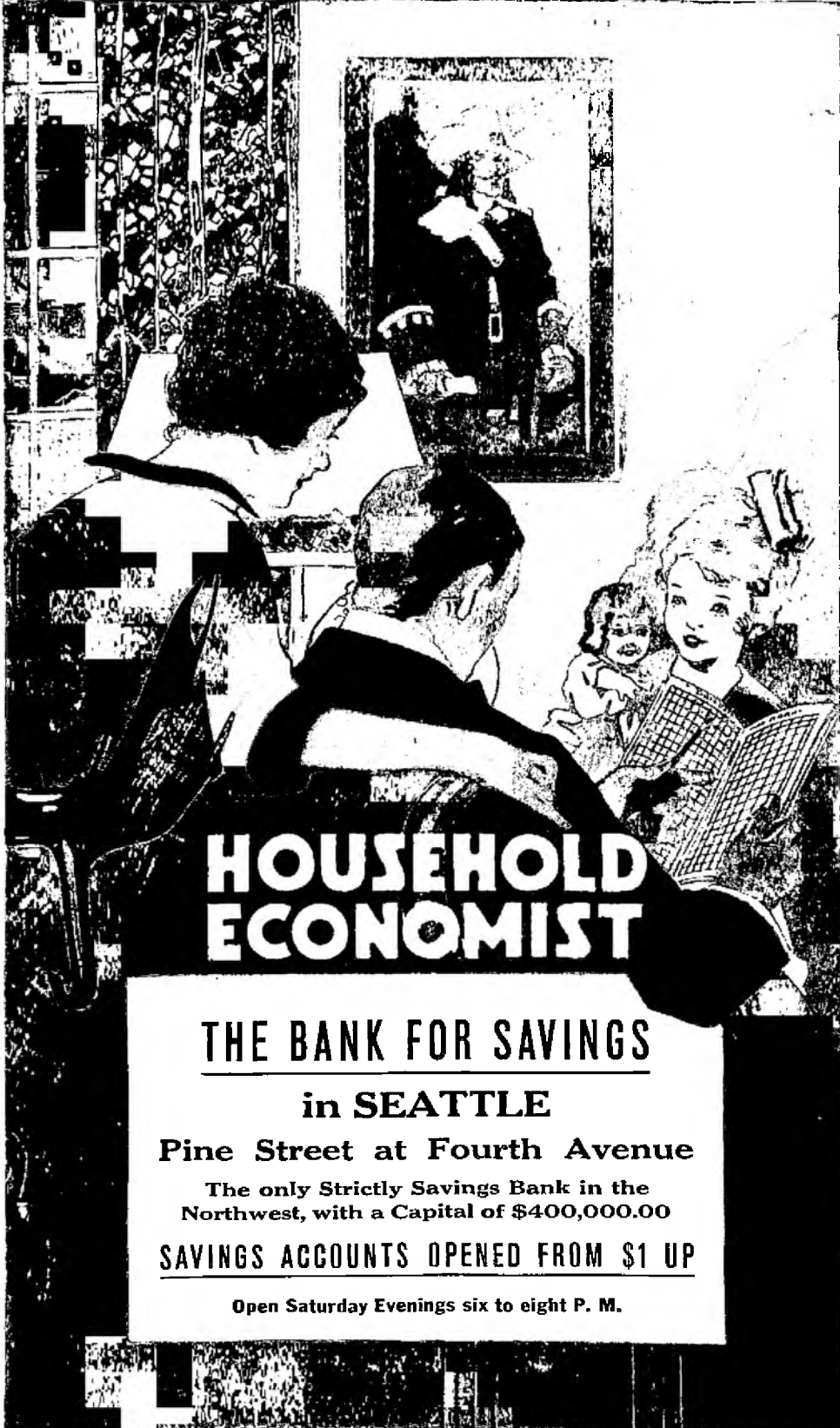




# HOUSEHOLD ECONOMIST

**THE BANK FOR SAVINGS**  
**in SEATTLE**

**Pine Street at Fourth Avenue**

The only Strictly Savings Bank in the  
Northwest, with a Capital of \$400,000.00

**SAVINGS ACCOUNTS OPENED FROM \$1 UP**

**Open Saturday Evenings six to eight P. M.**

## "THE PURPOSE"

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No other Question is so important to the Happiness of a Home as the mutual understanding by all the members of a family regarding the distribution of the total income, in other words apportioning the wages, etc., before actually spending them.

Without a Budget (paper expenditure), we have slipshod guesswork methods, without a definite standard for expenditures, with a certainty of extravagance, waste, a purposeless living and no records on which to base future expenses.

The distribution of the income cannot or should not be settled by any one member of the family, on account of the difficulty of imposing any such plan on the other members of the family, resulting in a lack of co-operation.

Why not call a Family Council to plan and decide on the Year's Expenditures? If all act together and agree how the income shall be divided, each feels a personal responsibility in seeing that the Budget is lived up to.

Next in importance of the mutual agreement as to how the income should be spent is the necessity of keeping an accurate account of how the income was spent.

If the husband thinks too much money was spent on food the housewife can show why the sum allotted cannot be reduced.

If the grown daughter believes more money should be allowed for clothing, let her suggest how some other household expense can be cut down.

If the son feels his weekly allowance is too small, let him devise some means of increasing the income in proportion.

This is the finest preliminary training for young folks who some day will have to make a budget of their own to learn the value of money.

There are two essentials to the keeping of accounts: First, system; second, faithfulness in following it.

This Household Economist has been devised to help the Busy Mother keeping her records with a minimum expenditure of time and effort.

**How Shall an Income Be Divided.**  
The following chart, grouping and classification gives a suggestion for a well balanced budget for a family of four and a yearly income of \$1,200.

Individual opinion or variation in income will probably mean a change in the proportionate division of the income, but our table will serve as a base (and we believe a correct one) to draw up a satisfactory schedule of weekly and monthly expenditures.

An itemized account will discourage many a useless or purposeless expenditure and cultivate thrift instead of extravagance.

### Budget.

| \$ 1200.00 YEARLY INCOME |                     |                    |                                                                                         | FILL OUT COLUMN BELOW TO CORRESPOND WITH YOUR INCOME. *SEE FOOT NOTE. |                    |
|--------------------------|---------------------|--------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------|
| DIVISION OF INCOME       | Allowance per Month | Allowance per Week | INTERPRETATION                                                                          | Allowance per Month                                                   | Allowance per Week |
| 10 % SAVINGS             | \$ 10.00            | 2.32               | This item should be laid away before any expenditures are made from the income.         |                                                                       |                    |
| 22 % SHELTER             | \$ 22.00            | 5.08               | Rent, or payments on Property, Taxes, Fire and Life Insurance.                          |                                                                       |                    |
| 30 % FOOD                | \$ 30.00            | 6.92               | Meats, Groceries, Dairy Products, Ice, etc., and meals taken away from home.            |                                                                       |                    |
| 15 % CLOTHING            | \$ 15.00            | 3.46               | Articles of Clothing, Shoes, Dressmaker or Tailor hire, repairs and pressing.           |                                                                       |                    |
| 13 % INCIDENTALS         | \$ 13.00            | 3.00               | Light, Heat, Laundry, Telephone, Car Fare, House Furnishings, Sundry Supplies.          |                                                                       |                    |
| 6% ADVANCEMENT           | \$ 6.00             | 1.38               | Lodge dues, Books and Periodicals, Church and Charity, Education, Music and Amusements. |                                                                       |                    |
| 4% LUXURIES              | \$ 4.00             | .92                | Indulgences and Pleasures which are not necessities.                                    |                                                                       |                    |

\* As will be noted in the above table showing the division of a yearly income of \$1,200, a certain percentage is allotted to savings as well as to the various classified expenditures, and in order to obtain the equivalent or corresponding figures to any other income, multiply the amount of percentage given under each classification by the number of dollars constituting either your monthly or weekly income.

As 10 per cent in this case means 10 cents for every dollar, if your income is \$75.00 per month your savings should be 75 times 10 cents, or \$7.50; and your shelter account 75 times 22 cents or \$16.50, etc.

By following this simple method the same division of income as shown in above table can be computed for any income.

## DAILY EXPENSE ACCOUNT

[illegible]

FOR MONTH OF \_\_\_\_\_ 191

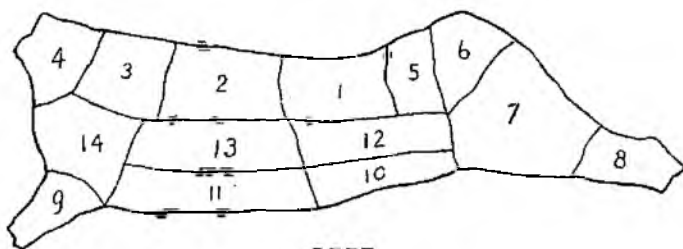
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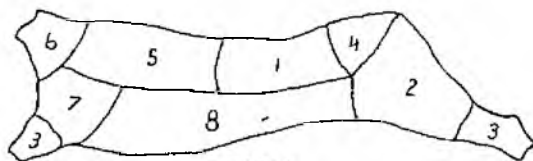
# MEAT BUYING CHARTS

While the cutting of food animals and names of certain cuts may vary slightly in different parts of the country the following charts give a fair general idea of the usual cutting and grades of various cuts.



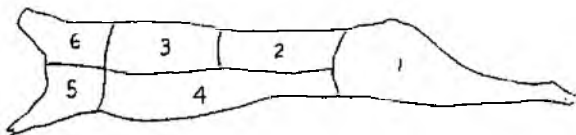
## BEEF.

1. Sirloin, the finest cuts for steak, also roasting.
2. Standing Ribs, for roast beef, includes about eleven ribs.
3. Chuck Ribs, a less desirable quality for roasting.
4. The Neck, cheap cuts for stewing and pot roast.
5. Pin Bone, good for roasting.
6. The Rump, good steaks with very little bone, also used for corning.
7. Round Steak.
- 8 and 9. Leg and Shin, good for soup meat.
10. Thin Flank.
11. Brisket, good for boiling and corn-ing.
12. Plate, used for boiling and corning.
13. Short Ribs or Cross Ribs, used for corn-ing or boiling.
14. Breast and Shoulder, used for corn-ing and soup meat.



## VEAL.

1. Loin, furnishes the best chops and roasts.
2. Fillet or Cutlets, excellent for steaks, roasts and frying, also for cold cuts.
3. The Leg, for stews and soup.
4. Rump for roasts.
5. The Rack or small chops.
6. Neck for stewing and meat pies.
7. Shoulder for roasting or stewing.
8. Breast for stuffing and roasting.

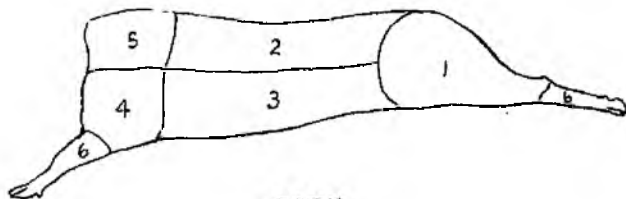


## MUTTON.

1. The Leg for roasting and boiling.
2. The Loin, the best cut for English chops.
3. Rack, choice French chops.
4. Flank and Breast for stews and meat pies.
5. Shoulder, for boiling or filling and roasting.
6. Neck, for stewing.

## LAMB.

- Lamb Cuts same as Mutton except Spring Lamb which is usually sold only as fore-quarter containing the shoulder breast and small ribs and hindquarter containing the leg and loin chops.



## PORK.

1. Ham, the most valuable part of the hog for roasting or smoking.
2. Loin, chops and fine roasting pieces.
3. Belly and Breast, for salting, smoking and spare ribs.
4. Shoulder for smoking or roasting.
5. Top of Shoulder and Neck, usually called Boston Butt, good for roasting or steak.
6. Shanks and Feet, for pickling and boiling.

## DIGESTION.

Average number of hours and minutes required for the digestion of various articles of food.

|                                 |      |                                  |      |
|---------------------------------|------|----------------------------------|------|
| Apples, sweet (boiled).....     | 2:30 | Lamb (boiled) .....              | 2:30 |
| Barley (boiled) .....           | 2:00 | Milk (raw) .....                 | 2:15 |
| Beans, lima (boiled).....       | 2:30 | Milk (boiled) .....              | 2:00 |
| Beef (roasted) .....            | 3:00 | Mutton (boiled) .....            | 3:00 |
| Beef (fried) .....              | 4:00 | Mutton (roast) .....             | 3:15 |
| Beef, salt (boiled).....        | 2:45 | Oysters (roast) .....            | 3:15 |
| Bread .....                     | 3:30 | Oysters (stewed) .....           | 3:30 |
| Butter .....                    | 3:30 | Pigs' feet, soured (boiled)..... | 1:00 |
| Cheese .....                    | 3:30 | Potatoes (baked) .....           | 2:30 |
| Chicken (fricaseed) .....       | 2:40 | Pork, salt (stewed).....         | 3:00 |
| Custard (baked) .....           | 2:45 | Pork (roast) .....               | 3:15 |
| Duck (roasted) .....            | 4:00 | Rice (boiled) .....              | 1:00 |
| Eggs (raw) .....                |      | Sago (boiled) .....              | 1:45 |
| Eggs (soft boiled).....         | 3:00 | Soup (barley) .....              | 1:30 |
| Eggs (hard boiled).....         | 3:30 | Soup (chicken, etc., average)... | 3:15 |
| Eggs (fried) .....              | 3:30 | Tripe, soured (boiled) .....     | 1:00 |
| Fish .....                      | 2:45 | Turkey (roast) .....             | 2:20 |
| Fowl (roast) .....              | 4:00 | Veal (boiled) .....              | 4:00 |
| Hashed meat and vegetables..... | 2:30 | Veal (fried) .....               | 4:30 |

## PROPORTIONS.

1 measure of liquid to 1 measure of flour for pour batter

1 measure of liquid to 2 measures of flour for drop batter.

1 measure of liquid to 3 measures of flour for doughs.

1 teaspoon of soda to pint thick sour milk.

1 teaspoon of soda to one cup of molasses.

$\frac{1}{4}$  teaspoon of table salt to one quart of milk for custards.

$\frac{1}{4}$  teaspoon of table salt to one cup of soup or sauce.

$\frac{1}{4}$  teaspoon of table salt to one pint of flour.

$\frac{1}{2}$  teaspoon of flavoring extract for a medium sized cake.

1 teaspoon of flavoring extract to one quart of custard cream.

1 desert spoon of flavoring extract to one quart of mixture to be frozen.

$\frac{3}{4}$  cup of sugar to a quart of milk.

4 eggs to a quart of milk for plain cup custards.

2 dessert spoons of gelatine to pint of liquid.

8 dessert spoons (pkg.) gelatine to two quarts of liquid.

Meat from  $3\frac{1}{2}$ -lb. chicken equals about one pint of meat cut for salad.

COOKING  
WEIGHTS AND MEASURES.

|                            |                                         |
|----------------------------|-----------------------------------------|
| 4 teaspoons of liquid, =   | = 1 tablespoon.                         |
| 4 tablespoons of liquid, = | $\frac{1}{2}$ gill or $\frac{1}{4}$ cup |
| $\frac{1}{2}$ cup.         | = 1 gill.                               |
| 2 gills.                   | = 1 cup.                                |
| 2 cups.                    | = 1 pint.                               |
| 4 cups (2 pints).          | = 1 quart.                              |
| 4 cups of flour,           | = 1 qt. or 1 lb.                        |
| 2 cups of butter,          | = 1 pound.                              |

|                                        |                              |
|----------------------------------------|------------------------------|
| $\frac{1}{2}$ cup of butter,           | = $\frac{1}{4}$ lb. or 4 oz. |
| 2 cups of granulated sugar,            | = 1 pound.                   |
| $2\frac{1}{2}$ cups of powdered sugar, | = 1 pound.                   |
| 1 pint of water or milk,               | = 1 pound.                   |
| 4 tablespoons of coffee,               | = 1 ounce.                   |

## BOILING TIME OF VEGETABLES.

|                   |                                       |                    |                                      |
|-------------------|---------------------------------------|--------------------|--------------------------------------|
| Asparagus,        | 20 to 25 minutes.                     | Macaroni,          | 20 to 30 minutes.                    |
| Beans (string),   | 1 to 2 hours                          | Onions,            | $\frac{3}{4}$ to 2 hours.            |
| Beets (new),      | $\frac{3}{4}$ to 1 hour               | Parsnips,          | $\frac{1}{2}$ to $\frac{3}{4}$ hour. |
| Beets (old),      | 4 to 6 hours.                         | Peas,              | $\frac{1}{2}$ to 1 hour.             |
| Beet Greens.      | 1 hour or more.                       | Potatoes (white),  | 20 to 30 minutes.                    |
| Brussels Sprouts, | 15 to 20 minutes.                     | Potatoes (sweet),  | 15 to 25 minutes.                    |
| Cabbage,          | $\frac{1}{2}$ to $1\frac{1}{2}$ hours | Rice,              | 20 to 30 minutes.                    |
| Carrots,          | 1 hour or more.                       | Squash,            | 15 to 20 minutes                     |
| Cauliflower,      | 20 to 30 minutes.                     | Spinach,           | 15 to 20 minutes                     |
| Celery.           | 2 hours.                              | Tomatoes (stewed), | 30 to 45 minutes.                    |
| Corn,             | 10 to 20 minutes.                     | Turnips,           | 30 to 45 minutes.                    |

## ROASTING AND BAKING TIME FOR MEATS, FISH, ETC.

|                                           |                   |
|-------------------------------------------|-------------------|
| Beef Ribs, rare,<br>per pound,            | 8 to 10 minutes.  |
| Beef Ribs, well<br>done, per lb.,         | 12 to 16 minutes. |
| Beef Ribs, rolled,<br>rare, per lb.,      | 12 to 15 minutes. |
| Beef Fillet, rare,<br>per pound,          | 20 to 35 minutes. |
| Mutton (leg), well<br>done, per lb.,      | 14 minutes.       |
| Mutton (shoulder),<br>well done, per lb., | 13 minutes.       |
| Lamb, well done,<br>per lb.,              | 15 to 18 minutes. |
| Pork, well done,<br>per lb.,              | 20 minutes.       |
| Chicken, per lb.,                         | 15 or more min.   |
| Turkey, 8 to 10 lbs.,                     | 3 hours.          |
| Goose, 8 to 10 lbs.,                      | 2½ hours.         |
| Ham,                                      | 4 to 6 hours.     |
| Fish (large and<br>whole),                | 1 hour or more.   |
| Small Fish,                               | 20 to 30 minutes. |
| Baked Beans (Bos-<br>ton),                | 6 to 8 hours.     |

## BOILING MEATS AND FISH.

|                                |                   |
|--------------------------------|-------------------|
| Fresh Beef,                    | 4 to 6 hours.     |
| Corned Beef,                   | 4 to 8 hours.     |
| Corned Tongue,                 | 3 to 4 hours.     |
| Leg or Shoulder<br>of Mutton,  | 3½ to 5 hours.    |
| Leg or Shoulder<br>of Lamb,    | 2 to 3 hours.     |
| Turkey, per lb.,               | 15 to 18 minutes. |
| Fowl, 4 to 5 lbs.,             | 2 to 4 hours.     |
| Chicken, 3 pounds,             | 1 to 1½ hours.    |
| Ham,                           | 4 to 6 hours.     |
| Lobster,                       | 20 to 30 minutes. |
| Codfish, per lb.,              | 6 minutes.        |
| Salmon, whole or<br>large cut, | 10 to 15 minutes. |
| Clams and Oysters,             | 3 to 5 minutes.   |
| Braised Meats,                 | 3 to 5 hours.     |

## BROILING.

|                          |                   |
|--------------------------|-------------------|
| Steak one inch<br>thick, | 4 to 10 minutes.  |
| Steak 1½ inch<br>thick,  | 8 to 15 minutes.  |
| Lamb or Mutton<br>Chops, | 6 to 10 minutes.  |
| Spring Chicken,          | 20 minutes.       |
| Slices of Fish,          | 12 to 15 minutes. |

## FRYING.

|                                |           |
|--------------------------------|-----------|
| Croquettes or Fish<br>Balls,   | 1 minute. |
| 5 to 8 minutes. Breaded Chops, |           |

## BAKING TABLE.

|                                   |                    |
|-----------------------------------|--------------------|
| Loaf Bread (1 lb.),               | 40 to 60 minutes.  |
| Rolls, Biscuit,                   | 10 to 30 minutes.  |
| Muffins,                          | 20 to 25 minutes.  |
| Popovers,                         | 30 minutes.        |
| Sponge Cake (loaf),               | 40 to 60 minutes.  |
| Layer Cake,                       | 15 to 20 minutes.  |
| Fruit,                            | 2 to 3 hours.      |
| Small Cakes,                      | 15 to 20 minutes.  |
| Custards,                         | 20 min. to 1 hour. |
| Steamed Brown<br>Bread,           | 3 hours.           |
| Steamed Puddings,                 | 1 to 3 hours.      |
| Pie Crust,                        | 30 to 45 minutes.  |
| Potatoes,                         | 30 to 45 minutes.  |
| Scalloped or Au<br>Gratin Dishes, | 10 to 20 minutes.  |
| Timbales,                         | 20 to 25 minutes.  |

## STANDARD TEMPERATURE

Much of the success in preparing food depends on the temperature to which it is subjected. The degree of heat necessary to cook certain meats, for instance, would ruin bread and cake.

The expressions, a "fast" or "quick" oven, a "moderate" oven, a "slow" oven are often seen, and many of us guess what they mean, but unless we use a thermometer we never can tell accurately. Good thermometers, one for the oven and one that can be used in liquids, cost very little, and pay for themselves quickly in the quality of flavor of the foods.

Using a Fahrenheit Thermometer, it should register:

For Baking Potatoes—300° for 45 minutes.

For Boiling Meats—212° for five minutes, and 180° for the remaining time of cooking.

For Stews—180°.

For Roast Turkey or Chicken—400° for 30 minutes, and 280° for remaining time.

For Roast Duck—360° for 30 minutes, and 230° for remaining time.

For Roasts (of all meats)—400° for 30 minutes, and 260° to finish.

For Bread in one-pound loaves—300° for ten minutes, and 260° for fifty minutes.

For Pastry—360°.

For Muffins—360°.

For Cakes without Butter—300° to 360°.

For Angel Foods—230° to 260°.

For Cakes with Butter—230° to 250°.

For Fruit Cake—220° to 260°.

For baking with gas, deduct twenty degrees from above table.

## SOUPS AND CHOWDER

### HOW TO MAKE SOUP STOCK.

A stock pot should have a place on every kitchen range where there are three or more in the family. It furnishes the foundation for nearly every kind of soup and sauce and the bits of meat, etc., that would otherwise be thrown away can be utilized and made to form the chief ingredient in a good nourishing soup. The stock pot may be any large size kettle, and its contents should be left-over pieces of fresh or cooked meat, odds and ends, raw or cooked vegetables, cracked bones, in fact anything but fish or something fish has been cooked in. Add just enough water to cover the meat and let it boil gently six or eight hours. The stock (the liquid part) may then be removed and placed in a large jar or bowl and allowed to cool. The grease arising to the top as the stock cools will form an airtight cover and prevent souring or spoiling. After the stock has been removed from the stock pot, the pot may be cleaned and made ready for the next lot.

### TOMATO BISQUE.

1 quart tomatoes.

$\frac{1}{2}$  teaspoon soda.

$\frac{1}{2}$  cup cracker-crumbs.

$\frac{1}{4}$  cup butter.

Salt and pepper.

1 quart boiling milk.

Stew the tomatoes, add the soda. Stir well and strain. Heat again and add the cracker, seasoning, butter and the boiling milk.

### CREAM OF CELERY SOUP.

Three roots celery, one quart milk, one tablespoon butter, two tablespoons flour, pint water, salt, pepper to taste, piece onion size of silver quarter. Wash the celery and cut into small pieces. Cover it with water and boil thirty minutes; then press it through a colander. Put the milk on to boil in a farina boiler, add to it the water and celery that was pressed through the colander, also the onion. Rub the butter and flour together, and stir into the boiling soup, and stir constantly until it thickens. Add salt and pepper and serve at once.

### CROUTONS.

Cut one or more slices of bread into dices and fry in hot grease. CROUTONS should be served with all thick soups.

### OXTAIL SOUP.

Take two oxtails and two whole onions, two carrots and a small turnip, two tablespoonsful of flour, a little white pepper, add a gallon of water; let all boil for two hours, then take out the tails and cut them into small pieces, return to the pot and boil for another hour, strain the soup, add slowly two spoonful of arrowroot previously mixed with cold water and let all boil for a quarter of an hour.

### GREEN PEA SOUP.

Boil the empty pods of half a peck of green peas in one gallon of water one hour, strain, add four pounds of beef cut into small pieces and boil slowly an hour and a half longer. Half an hour before serving add the shelled peas and twenty minutes later half a cup of rice flour, salt, pepper and a little chopped parsley. After adding the rice flour stir frequently so as to prevent scorching.

### POTATO SOUPS.

Simmer a small onion finely chopped in a tablespoonful of butter until brown, add half a spoonful of flour, one pint of milk, stirring to a creamy consistency; then add four mashed potatoes, strain and heat again after seasoning with salt and pepper and stir well.

### CLAM CHOWDER.

45 clams chopped, one quart diced potatoes, half a pint sliced onions, cut a few slices salt pork, fry crisp and chop fine, put in a kettle a little fat from the pork, a layer of potatoes, clams, onions, a little pepper and salt, another layer of chopped pork, potatoes, etc., until everything is in; pour over all the juice of the clams, two cups of cold water, boil for half an hour and add a pint of milk before serving.

### NEW ENGLAND CHOWDER.

Five pounds of codfish cut into squares, fry plenty of salt pork cut into thin slices, put a layer of pork in your kettle, then one of fish, one of potatoes cut into thick slices and one of onions in slices, plenty of pepper and salt; repeat as long as your materials last and finish with a layer of Boston crackers, water sufficient to cook with, milk if you prefer, cook for half hour and turn over on your plates, disturbing as little as possible.

## FISH

### BAKED SHAD

Have the fish split. Remove the backbone, and as many of the fine bones as your time and patience will allow. Make a stuffing with one cup of bread moistened in butter and hot tomato seasoned with salt, pepper, chopped parsley, and a little onion-juice. Spread this over the fish; sew the edges together. Put several slices of salt pork on the pan, lay the fish on these; rub all over with soft butter, dredge with flour, and bake about forty minutes, or till brown. Remove to a platter, spread with butter, and sprinkle with chopped parsley and lemon-juice. Pike, bass or pickerel can be baked in the same way.

### FISH CAKES

Take what is left of picked-up salt codfish, also the cream; add twice as much cooke, potato and more salt and pepper. Chop very fine, and mash until potato and fish are thoroughly blended. Add more potato or soft bread-crumbs if too moist, an egg if too dry. Shape into small flat cakes. Roll them in flour, and fry them in hot salt-pork fat.

### CREAMED MACKEREL.

Soak over night and simmer fifteen minutes in one cup of milk for each medium sized fish. Remove the fish to a hot platter and thicken the milk with one and a half tablespoonsful of flour, add one tablespoon of butter and pepper, one tablespoon of chopped parsley or green pepper, pour the sauce around the fish.

### ESCALLOPED SALMON.

One can of salmon broken fine with liquor, then butter your dish well; layer of salmon; white sauce; buttered bread crumbs. Repeat this until dish is filled having buttered crumbs for the top layer. Bake about half an hour. **White Sauce.**—Melt two tablespoons butter, add three tablespoons flour, when smooth add gradually one and one-half cup milk, a little salt and pepper.

## OYSTERS

### SCALLOPED OYSTERS.

Heat the strained liquor from a quart of oysters with one cup of milk. Melt in it quarter of a cup of butter. Cover the bottom of a buttered baking-dish with cracker-crumbs, wet them with the butter and milk, then add a layer of oysters, salt and pepper; then crumbs again and oysters, having a thick layer of crumbs on the top. Beat one egg, stir it into the milk that is left, and pour it over. Bake about half an hour.

### OYSTER PIE.

- 1 cup flour, heaping.
- 1 saltspoon salt.
- 1 teaspoon baking-powder.
- 1 tablespoon butter, melted.
- $\frac{1}{2}$  cup milk.

Mix salt and baking-powder with the flour. Put the melted butter with the milk, and stir them into the flour, mixing as soft as can be handled. Roll out to fit the top of the dish.

Fill a deep pudding-dish with oysters, dredge each layer with flour, salt, pepper, and butter. Cover with the crust, leave an air-hole in the centre, and bake quickly.

## MEATS

### LEG OF MUTTON WITH RICE.

Boil a leg of mutton until tender. Remove meat when done, leaving at least three pints of stock in the kettle. Add two cups of cleaned rice to the stock and cook twenty minutes. When done, pour contents of kettle over meat on platter and serve. Season meat as usual while boiling.

### BAKED HAM.

Take a ham weighing eight to ten pounds and soak in cold water for at least twelve hours; then cover with boiling water, add a little vinegar and boil slowly for two and a half hours, take out, remove skin, put the ham in a pan fat side uppermost, cover with breadcrumbs and stick with cloves. Bake for half an hour until brown.

### BEEF A LA MODE.

Take a piece of beef four or five inches thick, cut holes through it and stuff with pieces of salt pork rolled in pepper and cloves, lay in a pan, cover closely and cook in steamer three hours; when done, thicken gravy with a little flour.

### MOCK DUCK.

Take a round steak cut thick, wipe dry, cover with dressing made of one cup fine bread crumbs, half teaspoon salt, pepper, tablespoon butter, three finely chopped onions and enough milk to make a stiff mixture; roll steak carefully, tie with string and lay in dripping pan with enough water to prevent it from touching steak. Bake half an hour in hot oven, basting frequently. Serve with brown gravy and slice without unrolling.

### CURRIED BEEF.

Put two tablespoonsful butter in saucepan, add two small onions cut into slices, let fry until light brown, then add one and a half tablespoons of curry powder and mix well. Cut beef into pieces an inch square, pour into pan with one-third pint of milk and simmer for half hour, take out and put in a dish with a little lemon juice and serve with wall of boiled rice.

### CHICKEN POT PIE.

Clean and cut up chicken. Melt enough butter in a granite pan to cover the bottom. Dredge the chicken with salt, pepper, and flour; lay the pieces in the butter, and let them warm through. Add one minced onion if you prefer. Cover with cold water, and simmer one hour, or until the chicken is nearly done. Make a crust with one pint of flour, two teaspoons baking-powder, half a teaspoon salt; wet with milk, just stiff enough to roll out. Lay it over the chicken. Butter the inside of the cover, cover tightly, and cook half an hour. Serve in the same dish, or cut the crust in sections, and serve all on a platter.

### JELLIED CHICKEN.

Boil a chicken until tender, remove skin and bones, season to taste and place in mould. Put the bones back into liquid and boil down to one quart add quarter box of gelatine and the juice of one lemon, salt and pepper to taste, strain over the chicken and cool until stiff.

### PAPRIKA CHICKEN.

Fry three medium sized onions, sliced, in quarter pound of butter until light brown; add medium sized chicken cut up as for fricasee, and simmer slowly in its own juice until tender, season with salt and good teaspoonful of Paprika (Hungarian Red Pepper), then add pint of sour cream and dash of tomato ketchup. Simmer for ten minutes more, thicken with flour water and serve with boiled rice.

### ROAST RABBIT.

Clean the rabbit and fill with dressing made of bread crumbs, a little chopped onion, sage, pepper and salt and a small piece of butter; sew up and cover rabbit with sliced salt pork, put into pan with a little water and roast in quick oven, basting often. Serve with currant jelly.

## VEGETABLES

### POTATO SOUFFLE.

One cup of mashed potatoes,  $\frac{1}{4}$  cup of milk, 2 eggs, 1 teaspoon salt,  $\frac{1}{8}$  teaspoon of pepper, 1 tablespoon of butter. Mix potato, milk, melted butter and beaten yolks of eggs, fold in the stiffly beaten whites, bake in a moderate oven twenty-five to thirty minutes.

### POTATO CROQUETTES.

Two cups mashed potatoes; two tablespoons butter; one-half teaspoon salt and a little pepper, one-fourth teaspoon celery salt, and one teaspoon minced onion. Shape them and roll in flour and then roll in egg which has been beaten, with one tablespoon water and then in bread crumbs, and fry in deep fat.

### POTATO PAN CAKES.

Pare and grate six or eight potatoes. Add pinch of salt, one egg, two tablespoons flour. Drop by spoonfuls in hot fat. Stir the remaining mixtures occasionally to keep from turning dark.

### SCALLOPED RICE.

Cover bottom of baking dish with a layer of boiled rice, dot with three-fourths tablespoons of butter. Sprinkle with a thin layer of grated American cheese, a few grains of cayenne and continue with alternate layers until two cups of rice and a quarter of a pound of grated cheese are used. Pour over milk to half the depth of the baking dish, cover with buttered crumbs and bake until cheese is melted and crumbs are brown.

### BAKED TOMATOES.

Select smooth, round tomatoes, of uniform size, not very juicy. Put them in hot water, remove the skin, cut them in halves and scoop out all the seeds. Chop, and rub to a powder one-third of a cup of boiled ham or tongue. Add two-thirds of a cup of soft bread-crumbs, one teaspoon of chopped parsley or one saltspoon of thyme, a little pepper and sufficient melted butter to moisten. Fill the tomatoes with the mixture, place them in a shallow dish, and bake fifteen minutes.

### FRIED GREEN TOMATOES.

Cut off both ends from nice, large green tomatoes, cut in thin slices; roll them in flour, and cook them in hot butter in the frying-pan. Sprinkle with salt, pepper, and sugar, and cook until brown. Fry a sliced onion with them if you like the flavor. Serve them with fish-balls.

### EGG-PLANT.

Cut the plant into slices one-third of an inch thick, without removing the skin. Sprinkle salt over each slice, pile them, and cover with a weight to press out the juice. Drain, and dip each slice first in fine crumbs, then in beaten egg, and again in crumbs, and sauté them in hot fat.

### BOSTON BAKED BEANS.

Soak one pint small white beans over night. In the morning parboil in water with a little bicarbonate of soda, drain and put in crock, season with salt and pepper, one teaspoon mustard and quarter cup molasses, put piece of salt pork on top, fill with water and cook slowly twelve hours, adding water as needed.

## SALAD DRESSINGS

### HOLLANDAISE SAUCE.

Mix two tablespoons of butter, heaping teaspoon of cornstarch, tablespoonful of lemon juice into a third cup of water, cook over a low fire until thick, then add yolk of one egg beaten and take from fire immediately.

### FRENCH DRESSING FOR SALADS.

Mix together  $\frac{1}{2}$  teaspoon salt,  $\frac{1}{4}$  teaspoon paprika, three tablespoons of olive oil, one tablespoon of vinegar and chill in ice chest.

### SALAD CREAM.

Beat two whole eggs, add a tablespoon of salt, three tablespoons powdered sugar, two teaspoons mustard dissolved in half cup of water. Melt half cup of butter in one cup of vinegar, add a heaping spoonful of flour and mix the above together, stirring over hot water until smooth. Can be thinned with cream.

### MAYONNAISE DRESSING.

Mix one teaspoon mustard, one of powdered sugar, half teaspoon salt, quarter salt spoon cayenne, add yolks of two eggs, stirring well and gradually add a few drops at a time  $\frac{1}{2}$  pint olive oil. When thick add two tablespoons of lemon juice and two tablespoons of vinegar. When ready to serve half a cup of whipped cream should be added. Don't mix with meat or fish but spread over the top.

By adding chopped olives, pickles, parsley, capers and onions to the above a delicious sauce tartar is made.

## SALADS

### FRUIT AND NUT SALAD.

Cut equal amounts of apples and celery in cubes. Sprinkle with lemon juice and chill. Mix one-half cup of peanut butter with three-fourths of a cup of mayonnaise. Arrange the fruit and celery on lettuce leaves, add dressing and sprinkle chopped olives and pimentos over the top. This makes an attractive Christmas dressing.

### WALDORF SALAD.

One cup sour apples, one cup celery, one tablespoon lemon juice, one-half cup walnut meats broken in pieces. Cut apples in thin slices; cut celery in small pieces. Dust with salt and pepper. Mix with mayonnaise or boiled dressing.

### TOMATO AND CUCUMBER SALAD.

Scald two ripe tomatoes, peel them, put them in cold water or fine ice to become cold; drain, and either slice or divide into sections. Peel and slice very thin one cucumber; line a salad bowl with crisp lettuce leaves, add the tomatoes and cucumber, a teaspoon of minced parsley, with a few blades of chives, if possible add a few green tarragon leaves. Over all pour a plain salad dressing of olive oil, vinegar, salt and pepper.

### LUNCH SALAD.

Soak one envelope of sparkling gelatine in cup of cold water for five minutes, then dissolve in one and a half cups of boiling water.

Add the juice of three lemons and half cup of sugar. Pour in mold and when it begins to set add three tart apples, sliced, one cup celery cut into small pieces, and half cup of pecan nuts. Serve with mayonnaise dressing on lettuce leaves.

## DESSERTS

### ORANGE PUDDING.

Peel, remove seeds and slice thin five good oranges, cover with cup of powdered sugar. Heat a pint of milk in double boiler, add the yolks of three eggs well beaten, one tablespoon of corn starch made smooth in a little cold water, stir constantly and when thick pour over the fruit, cover with whites of the three eggs sweetened with a tablespoon of powdered sugar and beaten to a froth, set in oven for a few minutes to harden. Can be eaten hot or cold. (Best when cold.)

### POACHED EGG DESSERT.

Cut slices of sponge cake with large biscuit cutter into circles, moisten with sherry and cover thickly with whipped cream and place in center on top of cream half a preserved peach. A very delicious and simple dessert.

### PLUM PUDDING.

One-half cup raisins, one-half cup currants, one-half cup molasses, one-half cup sweet milk, one-half cup suet (chopped fine), two cups flour, three-fourths teaspoons soda, cloves, nutmeg and cinnamon to taste. Steam three hours.

### COCOANUT CUSTARD PUDDING.

Soak one cup dessicated cocoanut and 1 pint soft bread-crumbs in one quart of milk for half an hour. Beat the yolks of three eggs, add half a cup of powdered sugar, a dash of salt and nutmeg and a tablespoon of butter; stir this into the milk and bake in a moderate oven an hour. Beat the whites of the eggs to a froth, add  $\frac{1}{2}$  cup of powdered sugar and a teaspoon of lemon juice. Spread this over the pudding and brown slightly.

### SOUFFLE PUDDING.

Line a well buttered mold with large raisins, place ladyfingers or pieces of stale sponge cake around sides and bottom of mold, then fill mold with a rich custard, made from three eggs, a pint of milk and two heaping tablespoons of sugar; flavor to suit.

Steam one hour and serve with wine sauce made from one cup of sugar, half cup of butter, half cup of wine and one egg; beat sugar, butter and egg together, heat on stove until smooth then add the wine and a little nutmeg.

### PASTRY FOR ONE PIE.

1 heaping cup pastry flour.

1 saltspoon baking-powder.

1 saltspoon salt.

$\frac{1}{4}$  cup lard.

$\frac{1}{4}$  cup butter.

Mix salt and baking-powder with the flour and rub in the lard. Mix quite stiff with cold water. Roll out, put the butter on the paste in pieces the size of beans, and sprinkle with flour. Fold over, and roll out. Roll up like a jelly-roll. Divide in two parts, and roll to fit the plate.

### DELICIOUS BISCUITS.

Sift together one quart of flour, three heaping teaspoons of baking powder and a teaspoonful of salt, mix with a pint of sour cream into which has been dissolved a half teaspoonful of baking soda. Roll out until half an inch thick, cut with small biscuit cutter and bake in quick oven until brown.

### OLD-FASHIONED JOHNNY CAKE.

Mix together one cup of flour, one cup of corn meal, a quarter cup of sugar, teaspoon of salt, two teaspoons of baking powder, one beaten egg, one cup of milk and one tablespoon of butter, melted. Pour into greased tin and bake in moderate oven 20 to 30 minutes.

### DATE BISCUITS.

Mix and sift two cups of pastry flour, four level teaspoons of baking powder and one-half teaspoon of salt. Work in two tablespoons of butter, using the tips of the fingers and then add gradually three-fourths of a cup of milk. Toss on a floured board, roll to a third of an inch in thickness and cut with a small cutter. On half the rounds place selected dates from which the stones have been removed, brush the edges with melted butter, cover with the remaining pieces, press the edges together, and bake in a hot oven for about twelve minutes.

## CAKES

### NUT BREAD.

Three scant cupfuls of flour, four level teaspoonsful of baking powder, half a level teaspoonful of salt, half a cup of sugar, all sifted together. Mix together one beaten egg, one and a quarter cup of milk and one cup of walnut or pecan meats. Add to the above and bake in a bread tin for one hour. Have the oven slow for the first fifteen minutes to prevent the crust from splitting.

### POP OVERS.

Mix one cup of milk, one cup flour, one beaten egg. Put tablespoonful in each cup and bake in hot oven.

### MUFFINS.

Stir together one tablespoon of butter, two tablespoons sugar and two eggs; add one cup of rich milk, three teaspoonsful baking powder and enough flour to make a stiff batter. Bake twenty minutes in quick oven.

### GRAHAM MUFFINS.

One pint graham flour, two full teaspoons baking powder, one teaspoon salt, one tablespoon granulated sugar; mix well, then add sweet milk till rather soft, put in gem pans and bake in quick oven. Makes one dozen muffins.

### POUND CAKE

Three-quarter pounds (three cups) flour, half pound of butter, half pound powdered sugar, four eggs, quarter pound mixed peel, quarter pound large raisins, two ounces peeled almonds, two ounces candied cherries, one teaspoon lemon extract and half teaspoon baking powder. Mix into a dough, put into paper lined tin and bake one hour.

### LADY BALTIMORE CAKE.

Cream a scant cup of butter and add gradually two cups of powdered sugar, beating until very soft.

Mix into  $3\frac{1}{2}$  cups good pastry flour two teaspoons of baking powder and add slowly one cup of milk, half teaspoon vanilla extract and the whites of six eggs beaten very stiff and dry. Bake in three square shallow pans.

For filling, heat gradually three cups of sugar and one cup of water in a saucepan and boil without stirring until formed into a syrup, add the beaten whites of three eggs. Beat until heavy enough to spread, flavor to suit and add one cup chopped walnuts, one cup chopped, seeded raisins and half a cup of chopped figs. Spread this filling between layers and on top and cover with plain icing.

### CHOCOLATE NOUGAT CAKE.

One-quarter cup butter, one and a half cups sugar, two eggs, one cup sour milk, two cups bread flour, half teaspoon soda, three teaspoons baking powder, three squares chocolate, melted; half teaspoon vanilla, one-third cup powdered sugar, one cup shredded blanched almonds.

Cream butter and sugar, add the eggs unbeaten, mix and add alternately the sour milk, to which the soda is added, and the flour, to which the baking powder is added. Add the vanilla and almonds. To the melted chocolate add the powdered sugar and the sweet milk; cook until smooth. Cool slightly and add to the cake mixture. Bake in loaf and frost.

### ORANGE CAKE.

Two eggs, one cup of sugar, one tablespoon melted butter, one-half cup of milk, one and one-half cups of flour, two teaspoons baking powder, one tablespoon of orange juice, one teaspoon grated rind; mix in order given, bake in square pan, split and fill with following cream.

Put into a cup the rind of one-half and the juice of one orange, one tablespoon of lemon juice, and fill with hot water. Strain and put on to boil, add one tablespoon corn starch, wet with cold water and cook ten minutes, being careful not to scorch. Beat yolk of one egg with two heaping teaspoons sugar, add to the mixture with one teaspoon butter, let cook until the butter is dissolved, and cool.

**Frosting.**—White of one egg beaten stiff; add alternately powdered sugar and orange juice till the juice of one large orange and one-half a lemon has been used.

## CANDY

### SEA FOAM.

Three cups light brown sugar, one cup water, one tablespoon vinegar, pour over beaten whites of two eggs, one cup nuts. Add vanilla when done.

### BUTTER SCOTCH.

Four cups brown sugar, two of butter, vinegar to taste, two tablespoons water and a little soda, boil half an hour or until it hardens when a little is dropped in hot water.

### COLLEGE FUDGE.

Melt a quarter cup butter. Mix together in a separate bowl one cup each white and brown sugar, a quarter cup molasses and half cup cream. Add to the melted butter and bring to a boil. Cook three minutes, stirring very rapidly at first, but decreasing toward the end. Take from the fire, add a teaspoon and a half of vanilla, then stir constantly until thickened. Pour into buttered pan and set in a cold place.

### TURKISH PASTE.

2 packages gelatine - 1 large, juicy orange - 1 lb. granulated sugar - 1 lemon.

Soak the gelatine in two-thirds cup cold water five minutes. Put sugar on stove in two-thirds cup cold water, and when it comes to boiling point add the gelatine. Boil slowly but steadily twenty minutes; add the grated rind and juice of the orange and the juice of the lemon (there should be one-half large cup of fruit juice). Wet tin with cold water and pour in the mixture to the depth of one inch. When firmly set immerse mold in warm water; turn out and cut in cubes and roll in confectioner's sugar to which has been added a teaspoonful of cornstarch. Vary by using different fruit juices, flavorings and colorings.

### COCOANUT DROPS.

To one grated cocoanut add half its weight of sugar and the white of one egg beaten into a stiff froth; mix thoroughly and drop on buttered white paper; bake fifteen minutes.

## ICE CREAM

Base: Use milk or cream in proportion to richness desired, usually half and half. Add for each quart,  $\frac{1}{4}$  pound sugar or more, according to sweetness desired,  $\frac{1}{2}$  cup cornstarch, flavoring as desired according to table below.

Dissolve starch in half the liquid, the sugar in the other half, mix together and stir over light heat until thickened, then add flavoring, cool and then freeze.

Two eggs well beaten can be used instead of cornstarch.

| Flavoring  | Quantity of Base | Quantity of Flavoring or Fruit Juice | Juice of Lemon | Remarks                           |
|------------|------------------|--------------------------------------|----------------|-----------------------------------|
| Coffee     | one quart        | 2 oz. soluble coffee                 |                |                                   |
| Chocolate  | one quart        | 1½ oz. chocolate                     |                | ½ oz. vanilla sugar               |
| Lemon      | one quart        |                                      | 4 lemons       | Grate peel of 2 lemons into sugar |
| Peach      | one quart        | ½ pint                               | ¼ teaspoon     |                                   |
| Pineapple  | one quart        | ½ pint                               | ¼ teaspoon     |                                   |
| Raspberry  | one quart        | ½ pint                               | ¼ teaspoon     | 2 oz. orange juice                |
| Strawberry | one quart        | ¾ pint                               | ¼ teaspoon     |                                   |
| Vanilla    | one quart        | ½ ounce                              |                |                                   |
| Orange     | one quart        | 3 large oranges                      | 1 lemon        | Grate peel of 1 orange into sugar |

### PINEAPPLE SHERBET.

Mix  $\frac{1}{2}$  pint pineapple juice, 1 pint water, juice of 1 lemon,  $\frac{1}{2}$  pound sugar, beaten whites of 2 eggs and freeze. Grated or diced pineapple can be added if desired.

# HOW TO HAVE A GOOD GARDEN

(Extracts from 1918 War Garden Book issued by National War Garden Commission, Washington, D. C.)

## Garden Plan

Have a plan for your garden—drawn to scale on paper—before you start, to give proper order in planting and enable you to buy the right amount of seeds in advance while the selection is good.

Put in one general group small plants like beets, onions, lettuce, carrots, radishes and parsnips. In another general group put larger plants like corn, tomatoes and potatoes. Spreading ground vines, like melons and cucumbers, which need wider spacing, should be put in another general group. The reason for this grouping is that the various plants in a group need similar general treatment as well as spacing.

## Sunshine.

In the location of a garden it is not always possible to choose conditions as to sunlight. It is important, therefore, that in the arrangement of the various varieties of vegetables which are to be planted, due care should be given to providing the greatest exposure to the sun for those crops which need it most. Those plants which must ripen their fruits, such as tomatoes and eggplant, require the greatest amount of sunshine, while lettuce, spinach, kale and other leaf crops require relatively less. Even these latter, however, should have at least 2 to 3 hours a day.

## Vary From Last Year's Plan.

It is important to remember that plant diseases and insects are apt to thrive in a spot in which they have become established. For this reason those who make gardens this year should take care not to place the individual crops in the spot in which the same crops grew last year. Varying the arrangement of the garden in this way will reduce the danger from diseases and insects.

## THE SOIL AND MANURES

The back yard gardener must use the soil he has, but he can improve it if it is poor, and he must do this as far as possible. Stable manure will help even the richest soil, and you are not likely to use too much of it. During a single season professional gardeners apply as much as six inches of it. From 400 to 600 pounds can be used to advantage on a plot 20 by 20 feet. Coarse manure should be applied and thoroughly plowed or spaded under in the fall. In the spring, fine, rotted manure is applied, just before plowing or spading preceding the planting of any crop. If the ground is fairly rich, and well rotted manure is scarce, the manure may be scattered in the row only, and should be mixed into the soil before the planting of seed.

Loam is the best garden soil. Sand, with manure, gives good results. Clay is hardest to work, but is greatly improved by well rotted manure and vegetable matter—called humus. These should be well worked in with hoe and rake. Sifted coal ashes, entirely free from clinkers, will help loosen up clay when mixed into it, but will not remove an acid condition nor increase fertility.

## Commercial Fertilizer.

Many gardeners experience difficulty in obtaining supplies of well-rotted manure. In such cases commercial fertilizers should be used. Even where stable manure has been secured and worked into the soil it is well to supplement with moderate quantities of quick-acting fertilizer in order to give plants an early start and hasten maturity.

It is safest to rely upon the ready-mixed fertilizers usually obtainable at seed and hardware stores. Several specially prepared mixtures in convenient packages are now on the market. For large areas, 100 to 200-pound bags may be obtained. A mixture containing 3 to 4 per cent nitrogen and 8 to 10 per cent phosphoric acid is about right for the average garden. Your dealer will inform you on this point. If the fertilizer also contains potash, so much the better, but this year potash is scarce and high in price.

Where no manure is used the fertilizer should be spread over the surface of the finely prepared seed-bed at the rate of 5 pounds for a plot 10 feet square, just before planting. The surface soil should then be thoroughly raked so as to mix the fertilizer evenly to a depth of 2 inches. Never place seed or transplanted plants in direct contact with fertilizer. Thorough mixing of the fertilizer with the soil is essential to prevent injury of seed or roots.

Where manure has been worked into the soil, reduce the fertilizer application approximately one-half.

Tomatoes, eggplants, potatoes, spinach and some other crops requiring rather long growing seasons, are materially benefited by a second application of fertilizer when half grown. Side dressings of this kind should be scattered between the rows at the rate of four ounces (one-half pint) to 10 feet of row, when rows are spaced 2 feet apart; and pro rata for rows spaced a greater or lesser distance. To insure even distribution mix the fertilizer with fine, dry earth just before spreading.

## Compost.

Compost is especially desirable when quick growth is wanted. Compost is thoroughly rotted manure or organic material. It is prepared from six to twelve months before being used, by putting the manure and other material in piles having perpendicular sides and flat tops. These piles are usually from 2 to 4 feet high and 6 to 8 feet long.

Besides the usual waste of garden rubbish, there is a large waste of leaves, weeds and the skins and other unused portions of fruits and vegetables. These should all be thrown on the compost pile to decay for use on the garden next spring. Destroy all plants which are diseased. The compost pile should be built up in alternate layers of vegetable refuse a foot thick and earth an inch or more thick. The earth helps to rot the vegetable matter when mixed with it. The top of the pile should be left flat so the rain may enter and help in the process of decay.

## Lime.

Land which has long been unused or land in lawns, is apt to be sour. To remedy this condition apply evenly 1 pound of airslaked lime or 2 pounds of ground limestone to every 80 square feet. The lime should be applied and raked in to a depth of 2 inches when the seed bed is being prepared in the spring. Instead of lime 2 pounds of unleached wood ashes may be used.

## SELECTION OF CROPS

The home garden campaign for 1918 should be planned with a view to the production of the largest possible amount of food with the smallest possible outlay of seed and fertilizer. Authorities agree that the seed shortage is the worst the country has ever seen. The supply of fertilizers and natural manures is also far below the normal. The demand for these materials is exceedingly great and wartime efficiency makes it vital that wartime conservation be practiced in the use of

them. To this end the vegetable garden should be devoted as far as possible to those crops which are most useful for food in which the chances of failure are least to be feared.

In the selection of vegetables for the home garden preference should be given to those having high food values. In the order of food value some of the best-known vegetables are: Beans, peas, corn, potatoes, parsnips, onions, beets, carrots, squash, greens, turnips, cabbage, cauliflower, radishes, tomatoes and celery.

Cauliflower, muskmelons, watermelons, onions from seed, asparagus and cucumbers are some of the plants that are most difficult to raise and are not recommended to the amateur gardener.

Soils vary so much that serious attention should be given to the crops suited to the individual garden. This is a local question. Consult your local war garden committee's experts as to the best crops for your particular soil.

Many communities last year witnessed an over-production of some vegetables that had to be used during the growing season. Many gardeners had larger crops of these than they could possibly use. Much waste resulted. To prevent this loss in seed, fertilizer, garden space, labor and foodstuffs every gardener should give especial attention to the selection of crops. Plant sparingly of those things which must be used as they mature and plant liberally of those things which may be saved for winter use by canning, drying or storing.

### HOW MUCH SEED TO BUY.

The following amounts of seed will plant in each case a garden row 100 feet long. Measure your rows and buy accordingly. Also compare your figures with planting table on page 45.

|                                  |                         |
|----------------------------------|-------------------------|
| String beans .....               | $\frac{1}{2}$ to 1 pint |
| Lima beans .....                 | $\frac{1}{2}$ to 1 pint |
| Cabbage .....                    | $\frac{1}{4}$ ounce     |
| Carrot .....                     | 1 ounce                 |
| Cauliflower .....                | 1 packet                |
| Celery .....                     | $\frac{1}{4}$ ounce     |
| All squash .....                 | $\frac{1}{2}$ ounce     |
| Beets .....                      | 2 ounces                |
| Sweet corn .....                 | $\frac{3}{8}$ pint      |
| Lettuce .....                    | $\frac{1}{2}$ ounce     |
| Muskmelon .....                  | $\frac{1}{2}$ ounce     |
| Cucumber .....                   | $\frac{1}{2}$ ounce     |
| Eggplant .....                   | 1-3 ounce               |
| Kale, or Swiss chard .....       | $\frac{1}{2}$ ounce     |
| Parsley .....                    | $\frac{1}{4}$ ounce     |
| Parsnip .....                    | $\frac{1}{2}$ ounce     |
| Vegetable oyster (salsify) ..... | $\frac{1}{2}$ ounce     |
| Onion sets (bulbs) .....         | 1 quart                 |
| Onion seed .....                 | 1 ounce                 |
| Peas .....                       | 1 to 2 pints            |
| Radish .....                     | 1 ounce                 |
| Spinach .....                    | 1 ounce                 |
| Potatoes .....                   | $\frac{1}{2}$ ounce     |
| Turnip .....                     | $\frac{1}{2}$ ounce     |

1 or 2 pecks of early potatoes and  $\frac{1}{2}$  to 1 bushel of late potatoes are enough to plant to supply four persons.

The standard adopted by the United States Department of Agriculture for seed germination is as follows:

Should produce 60 to 80 per cent:  
Celery, Parsley, Salsify, Eggplant, Parsnip.

Should produce 80 to 85 per cent:  
Asparagus, Okra, Spinach, Carrot, Onion, Cauliflower, Pepper.

Should produce 85 to 90 per cent:  
Corn (sweet), Lettuce, Squash, Cress, Melon, Tomato, Cucumber, Pumpkin.

Should produce 90 to 95 per cent:  
Bean, Mustard, Turnip, Cabbage, Pea, Radish.

### INDOOR PLANTING.

Earlier crops can be secured by planting certain seeds indoors and setting the

young plants out in the open garden after the weather becomes warm. This may be done with tomatoes, cabbage, lettuce, cauliflower, peppers, and eggplant.

Any wooden box, shallow and wide, will make an indoor garden. Put 1 inch of gravel or cinders in the bottom for drainage, and fill to the top with good soil. Rows of plants may be 2 inches apart.

Plant 8 or 10 seeds to the inch, keep the soil damp, and set the box in a window. When the plants are an inch high transplant them to other seed boxes, spacing plants 2 inches apart. This insures sturdy plants with good root systems.

### TRANSPLANTING.

Before transplanting the plants to the garden set the box outdoors, in mild weather, to harden the plants. Set out each plant with a ball of the box dirt sticking to the roots. Thorough watering several hours before transplanting causes the earth to stick as required.

If the root system is broken in the removal trim away some of the larger leaves of the plants. In moist ground open a hole with trowel or dibble. Make the hole larger than is needed to hold the roots and a little deeper than the roots grew. Place roots in hole, and, with the hands, pack the soil firmly around the plant. In dry soil pour a pint of water into each hole before inserting plant. Rake some dry earth about the surface surrounding each plant to hold the moisture.

Transplanted plants cannot stand strong sunshine at first and cloudy days or late afternoon are preferable for transplanting. In bright weather place newspapers over them for a day or two, making tents of the papers, in the shape of an inverted V.

A homemade paper pot, a round, bottomless paper band or a berry box, filled with soil may be used to produce plants for a hill of beans, cucumbers, sweet corn, melons or other plants which are started indoors. In transplanting these plants merely remove the bottom, if there is one, and sink frame and plants in the garden soil. This prevents disturbing the root systems, which is important.

### WHEN TO PLANT.

When heavy frosts are over, plant early peas, onion sets and seed, early potatoes, kale, lettuce and spinach. All of these will stand light freezing except potato plants, which must be covered with dirt when frost threatens.

When frosts are about over plant radishes, parsnips, carrots, beets, late peas and early sweet corn, and set out cabbage and cauliflower plants. (An old and useful rule is to "plant corn when the oak leaves are the size of a squirrel's ear.")

When all frosts are over and apple trees are in bud, plant string beans and late sweet corn, and set out a few early tomato plants from the indoor boxes.

When apple trees blossom plant cucumbers, melons, squashes, lima beans and set out the rest of the indoor plants.

### FALL PLANTING.

It is well to plant a fall garden of some crops, for in spite of the risk of injury by early frost the chances are in favor of satisfactory results. There can be no absolute rule as to the time of planting. The probable time of the first frost in each locality must be taken as a general guide. For planting in August, and possibly even in early September, the following vegetables may be grown:

When first frost may be expected between September 15 and September 25:

Lettuce, Spinach, Parsley, Multiplier Onions and Turnips. (Kale and Radishes may be risked.)

When first frost may be expected be-

tween September 30 and October 5:

Kale, Lettuce, Parsley, Multiplier Onions, Radishes, Spinach and Turnips. Beets and Chard for greens.

When first frost may be expected between October 5 and October 15:

Beets for canning, Carrots, Kale, Multiplier Onions, Spinach, Chard, Endive, Lettuce, Radishes and Turnips.

When first frost may be expected between October 15 and October 25:

Any of the vegetables mentioned in the preceding lists. (String beans may be risked.)

### LAYING OFF ROWS.

Straight rows add to the garden's beauty and make cultivation easier. To make the rows straight stretch a stout string between stakes and follow it with the point of a hoe, with a wheel hoe, or with the end of the handle of a rake or hoe, to open up the row.

### FOR CONTINUOUS CROPS.

With some of the important vegetables a series of plantings is desirable. Of string beans, lettuce, radishes, spinach, sweet corn, peas, beets and carrots there should be several successive plantings, two or three weeks apart, to provide a fresh and continuous supply all season.

### HOEING.

When the green rows appear it is time to start hoeing or cultivating. Never hoe or cultivate deeply—an inch or two is deep enough—but stir the ground frequently, and always after rain or watering as soon as it is dry enough. The hoeing must not be done after rain or watering when the ground is still so wet as to cause the muddy earth to pack like cement, as this causes the earth to cake and dry out rapidly.

Frequent hoeing causes the formation of a dust layer which prevents the soil underneath from drying out. The garden should always be kept free from weeds, as these, if permitted to grow, consume plant food and moisture needed by the plants.

### WATERING.

A plentiful supply of moisture is essential. If there is not sufficient rainfall the moisture must be provided by watering the garden. In doing this it is better to soak the ground once a week than to water every day. Late afternoon is the best time.

To moisten the surface is not enough. There must be a thorough wetting. If pipe connections are available a garden hose is the best means of watering. One of the most satisfactory methods is to open small furrows between rows and allow water to run into these trenches, raking the earth back into place several hours later, after the water has thoroughly soaked in. The sprinkling pot will serve if hose is not available, but it is more laborious.

## INSTRUCTIONS FOR PLANTING AND CULTIVATING

### POTATOES.

The best seed will produce the best crop. Potatoes grow best in sandy loam or in a gravel loam.

Preparation of the soil should be done with care. The ground should be worked with plow, spade and hoe, to a depth of 8 or 10 inches, and should be thoroughly broken up or pulverized, then thoroughly worked with a steel-toothed rake. This preparation is of great importance and should not be slighted.

#### Treat Seed for Scab.

A simple remedy, easily applied, is to soak the seed potatoes before planting, in a solution of formalin and water. This solution is made of 1 ounce of Formalin

(40 per cent formaldehyde), mixed in 2 gallons of water. In this mixture soak the uncut potato for two hours, and spread them out to dry. The solution can be used on as many lots of potatoes as desired.

Seed potatoes should be spread out in a room in which they will be exposed to strong light for two weeks before cutting, to start sprouts and detect poor seed. If large potatoes are used cut them into pieces weighing from 1 to 2 ounces, each piece having two eyes. If potatoes are scarce and expensive the pieces may be cut to a single eye. Do not cut the seed until it is to be planted.

### Asparagus.

Use strong plants two years old, which may be purchased from seedsmen. Set them 18 inches apart, in rows 3 feet apart. The rows should be 3 to 10 inches deep, with width of 6 to 8 inches at bottom. After spreading out roots cover crowns with 2 inches of soil. With the growth of the shoots gradually fill in with earth until level with surface. Careful cultivation is required during season.

The cultivation of Asparagus is not recommended to home gardeners, as the first year's results are too small to make it worth while.

### Beans.

String and Lima beans are grown alike. There are two sorts of each—low bush vines and bean vines that climb poles. Pole beans are best for small gardens.

Plant beans and bush Limas 1 inch deep, 4 to 6 inches apart in rows.

Plant pole beans and pole Limas in hills 1 inch deep, 4 seeds to hill, hills 3 feet apart. Thin to 2 plants to the hill. Before planting fix firmly in each hill a pole 5 to 6 feet long. If desired have two rows of hills and slant the poles so that each set of 4 may be tied together at the top like an Indian tepee.

Help the vines to start twining around the poles from right to left.

Note: Plant Lima beans with the "eyes" of the seeds downward.

### Beets.

Sow seed rather thickly in row, but thin the young plants by pulling until the survivors are 4 inches apart. The pulled plants make fine green for cooking or canning.

### Brussels Sprouts.

Grown like cabbage.

### Cabbage.

Set plants from indoor seed boxes or pots 15 inches apart in rows, the rows being 30 inches apart. Between these rows early lettuce, radishes, and other little crops may be planted. Early cabbage should be gathered as soon as it has formed solid heads. Late cabbage may be stored in trenches and covered with straw and earth.

### Carrots.

Sow seed  $\frac{1}{2}$  inch deep, using  $\frac{1}{4}$  ounce to 25 feet of row. Thin to 2 or 3 inches apart when roots crowd each other.

### Cauliflower.

Grown the same as cabbages except when the heads form, the loose outer leaves should be tied together over the heads to keep out light and bleach the heads.

### Celery.

Sow seed in seed boxes and set plants in garden in June or July, 6 inches apart, trenches 6 inches deep and 3 feet apart. As the plants grow, cultivate the ground into the trenches. When plants are large heap earth around stalks to whiten them.

### Celeriac.

This is a large rooted form of celery. It is grown like celery, except that the plants do not need blanching. The large root is cooked for use. The plants should be protected in freezing weather by straw or

mulch (half rotted manure and straw), and dug as used.

### Corn, Sweet.

Plant 5 or 6 seed 1 inch deep in hills 3 feet apart. When plants are 4 inches high pull out all but 2 or 3 plants in each hill. Make new plantings every 2 weeks until July or August so as to have corn for use during the entire season.

### Cucumbers.

Plant 8 to 10 seed 1 inch deep in hills 4 feet apart. Later thin to 2 plants per hill. Do not plant until soil is warm and frosts are over. Hoe or cultivate only until plants start to vine, then pull weeds by hand.

### Eggplant.

Little plants from seed boxes are set 2 feet apart in rows 3 feet apart.

### Endive.

In midsummer sow seed  $\frac{1}{2}$  inch deep and later thin plants to 3 inches apart. To blanch hearts raise leaves and tie together over heart.

### Kale.

Sow seeds  $\frac{1}{2}$  inch deep in rows 18 to 21 inches apart. Thin the plants until they are from 6 to 8 inches apart in the rows.

### Kohl-rabi.

Sow seed  $\frac{1}{2}$  inch deep and later thin plants to 4 or 6 inches apart.

### Lettuce.

Sow seed  $\frac{1}{2}$  inch deep in rows 1 foot apart, and later thin out until plants are 5 to 6 inches apart. There should be successive plantings, but lettuce is not grown in extremely hot weather. Sow seed the last of August and in September, to be transplanted to the cold frame in October.

### Mint.

Roots may be procured from a seedsman or neighbor. Plant one or two clumps of these roots in a corner of garden in the spring.

### Muskmelon.

Grown like cucumbers except hills must be 6 feet apart.

Muskmelons are difficult to raise and are not recommended to gardeners who are not experienced in their culture.

### Onions.

Onions will grow from seed or from bulbs, called sets. It is better to use sets in home gardens. For early green onions plant sets 3 inches apart in rows 1 foot or more apart. To grow from seed, plant the seed rather thickly  $\frac{3}{4}$  of an inch deep in rows and thin them later until plants are 2 to 3 inches apart. If sets for planting next spring are desired, do not thin out any plants, but let them crowd so they will remain small. Seed may be planted in seed box or seed bed and when transplanted placed 3 inches apart.

### Parsley.

Sow seed thinly  $\frac{1}{2}$  inch deep, later thinning plants when they crowd each other.

### Parsnips.

Sow seeds thinly  $\frac{3}{4}$  of an inch deep in rows 18 to 24 inches apart and later thin plants to 3 inches apart.

### Peas.

Peas should be planted in trenches 4 inches deep, the seed being covered with 3 to 4 inches of soil. From 1 to 2 pints of seed will plant 100 feet of row. As the plants grow, gradually fill in the trench around them. Let the vines grow up on brush

or poultry wire. The rows of peas should be 3 to 4 feet apart, but if the space is small it is desirable to plant double rows 1 foot apart, placing the brush between these rows. Make three or four plantings in 2-week intervals to give a continuous crop.

### Peppers.

Set young plants from seed box 18 inches apart in row.

### Pumpkin.

Plant in hills 3 to 10 feet apart, using 3 to 10 seed to a hill. Plant seed 1 inch deep. Later thin to 2 or 3 plants to a hill.

### Radishes.

Planted and grown the same as carrots.

### Rhubarb.

Procure roots from a neighbor or dealer, as seed planting is not advised. Set them 3 to 4 feet apart, in rows or next to fence. Use manure freely.

### Salsify or Oyster Plant.

Also called vegetable oyster. Grown like carrots. Plants must be thinned to 3 inches apart.

### Spinach.

Sow seed thickly 1 inch deep in rows 12 to 18 inches apart, for both early spring and fall crops.

### Squash.

Grown the same as cucumbers or muskmelon, except that the hills of Hubbard squash should be 7 to 9 feet apart.

### Swiss Chard.

Sow seed  $\frac{1}{2}$  inch deep. Thin out when necessary.

### Tomato.

Set out young plants from seed boxes 30 to 36 inches apart and support them later with stakes driven into the ground. Rows should be 36 to 48 inches apart.

### Turnip.

For early spring, plant  $\frac{1}{4}$  ounce of seed to 50 feet of row, sowing them  $\frac{1}{2}$  inch deep, in rows 1 foot or more apart. For fall crop  $\frac{1}{4}$  ounce of seed to 50 feet of row,  $\frac{1}{4}$  inch deep.

### Vegetable Marrow.

Plant 6 or 8 seed to a hill, one inch deep, in hills 8 to 9 feet apart. Thin to 2 plants to hill. Give the same care as for pumpkins. The young and tender vegetable marrow may be baked whole like sweet potatoes or may be sliced and fried like egg-plant, or boiled like summer squash.

### Watermelon.

Plant 1 inch deep, 8 or 10 seed to each hill, the hills 10 feet apart. Later thin to 2 plants to each hill.

Watermelons are difficult to raise and are not recommended to gardeners who are not experienced in their culture.

## DISEASES AND PREVENTIVES

The ordinary blights are usually overcome by spraying with Bordeaux mixture.

### Bordeaux Mixture.

Copper Sulphate, Blue Stone or Blue Vitriol ..... 3 ounces  
Lump Lime, or Hydrated Lime ..... 3 ounces  
Water ..... 2½ gallons  
To make Bordeaux Mixture procure the

ingredients at a drug or seed store. If lump lime is used it must be fresh. Instead of lump lime some authorities prefer fresh hydrated lime as being just as good and at the same time much simpler to use, needing only to be stirred into the water. Hydrated lime is lime to which enough water to dryslake it has been added by the manufacturer. It is a powder and does not require slaking.

For making or holding Bordeaux mixture use containers of wood or earthenware. In one container dissolve the copper sulphate in about one-half gallon of hot water and then dilute with enough cold water to make a total of  $1\frac{1}{4}$  gallons. In another vessel slake the lime and dilute it with enough water to make  $1\frac{1}{4}$  gallons. If hydrated lime is used simply mix it with water. Then pour these two solutions together, pouring the solution of copper sulphate slowly into the mixture of lime and water, stirring vigorously while this process is under way. The stirring insures proper mixing of the two.

Bordeaux mixture may be purchased in concentrated form from seedsmen, but the home made mixture is better and cheaper. Do not make more at one time than will be needed within a short time. The mixture is better and more effective if made fresh for each spraying.

### Sulphur.

For the control of Mildew, pulverized sulphur or flowers of sulphur, procured at a drug or seed store, is dusted full strength on the diseased plants. A thin can with small holes punched in the bottom makes a good sifter for this purpose, or a cheap flour sifter may be used. The holes in a flour sifter are the proper size for this purpose.

### THE SUCKING INSECTS.

For the destruction of insects which suck the sap of plants, such as the true bugs and the plant lice or aphids, it is necessary to use a mixture which kills by contact, or substances which smother. Aphids or plant lice usually collect on the underside of leaves, causing them to crumple. This crumpling causes the edges of the leaves to turn down, protecting the aphids. Badly crumpled leaves should be picked and burned. In spraying be sure to apply the spray to the undersides of the leaves. Otherwise the edges will serve as protection and prevent the spray from reaching the entire plant effectively.

### Nicotine Sulphate Solution.

To destroy the sucking insects use Nicotine Sulphate Solution, made as follows:

Nicotine sulphate .....  $\frac{1}{2}$  ounce  
Laundry or other soap .....  $\frac{1}{2}$  ounce  
Water ..... 2 gallons  
Dissolve the soap and then add this and the nicotine sulphate to the water.

### Bordeaux and Nicotine Sulphate Combination.

A combination spray for plant diseases and sucking insects is made thus:

Bordeaux mixture ..... 2 gallons  
Nicotine sulphate .....  $\frac{1}{2}$  ounce  
Laundry or other soap .....  $\frac{1}{2}$  ounce

### THE EATING INSECTS.

The eating insects, or those which eat fruit or foliage, may usually be killed by using a spray of a poisonous solution or by dusting poison powders on the plants attacked. Arsenate of lead, procured at a drug or seed store, is a favorite poison for this purpose, and may be used in spray or powder, but it must be handled with care as it is poisonous to human beings. It should never be applied to vegetables that are soon to be used, nor on cabbage or cauliflower after the heads have begun to form. As an added precaution wash carefully all vegetables before using, whether they have been sprayed or not.

### Arsenate Of Lead Solution.

Arsenate of lead spraying solution is made by mixing 1 ounce of arsenate of lead powder with 6 quarts of water. If the arsenate of lead is used in paste form instead of powder mix 2 ounces with 6 quarts of water. The powder is more easily weighed and handled. Keep the mixture well stirred while spraying, to insure even distribution.

To apply arsenate of lead in dry form, mix 1 ounce of the powder with 3 pounds of air-slaked lime, dry road dust or ashes finely sifted. Use a sifter for dusting this onto the plants, while the plants are wet with dew.

### Bordeaux-Arsenate Of Lead Combination.

Spraying with a combination of Bordeaux mixture and arsenate of lead every two weeks is a wise safeguard against both disease and eating insects. To make this combination spray use Bordeaux mixture instead of water when preparing the arsenate of lead. By using a combination spray half the labor of spraying is saved.

In spraying cabbage and cauliflower with Bordeaux and arsenate of lead before the heads form, a little soap mixed with the arsenate of lead will make it stick better. Shave the soap, add a small quantity of water and boil until the soap is dissolved or put it in cold water and stir occasionally until dissolved. Cool and stir into the arsenate of lead solution.

Paris green has long been used for protection, but arsenate of lead is now used much more extensively and is considered better.

### Pyrethrum.

The best spray for cabbage, cauliflower and similar vegetables, after the heads have begun to form, is Pyrethrum, which can be bought at a drug or seed store and which is not poisonous to human beings. It may be used as a spray in the proportion of 1 ounce of Pyrethrum to 2 gallons of water.

It will mix best if first made into a paste with warm water. It may also be used in its full strength as a powder, with bellows or sifter.

### Poisoned Bait.

Poisoned bait is useful against cutworms and slugs. Small portions of the bait should be placed around plants subject to attack by them. The pests feed at night and hide under chips or other objects during the day. Bait should be placed beneath these. Poisoned bait may be made at home thus:

Wheat bran ..... 1 pound  
White arsenic, powdered .....  $\frac{1}{2}$  ounce  
Cheap sirup ..... 1 to 2 ounce  
One lemon or orange, chopped fine.  
Water to make a thick mash of the mixture.

The bran and the white arsenic should be mixed. Dilute the sirup with a little water and pour this over the bran and white arsenic; add the lemon or orange and stir well. Add enough water to make a thick mash.

### Removing Insects By Hand.

The larger eating insects may be removed by hand or knocked off into a pan of water on the surface of which a small quantity of kerosene is floating. Insects collected by hand should be destroyed immediately.

### Some Other Forms of Protection.

One form of protection against cut worms is a collar 2 inches wide made of stiff paper, placed around the stem of the plant and with its lower edge inserted in the ground, to prevent the pests from reaching both stem and root.

Small frames covered with mosquito netting or cheesecloth set over young plants will protect them.

## PLANTING TABLE

| Vegetable              | Quantity required for 100 feet of row | Distance Apart In Inches |                     | Depth of Planting Inches       | Time of Planting                                                            | Mature (In days except as noted) |
|------------------------|---------------------------------------|--------------------------|---------------------|--------------------------------|-----------------------------------------------------------------------------|----------------------------------|
|                        |                                       | Rows                     | In Row              |                                |                                                                             |                                  |
| Asparagus, seed.....   | 1 oz.....                             | 12 to 24                 | 3 to 5.....         | ½ to 1.....                    | Early spring.....                                                           | 3 to 4 yrs                       |
| Asparagus, plants..... | 60 to 80.....                         | 36 to 48                 | 15 to 20.....       | 8 to 10.....                   | Early spring.....                                                           | 1 to 3 yrs                       |
| Beans, snap.....       | ½ to 1 pt.....                        | 20 to 24                 | 4 to 6.....         | 1.....                         | April to August.....                                                        | 40 to 65                         |
| Beans, pole.....       | ½ pt.....                             | 36 to 48                 | Hills 24-36.....    | 1.....                         | May and June.....                                                           | 50 to 80..                       |
| Beans, Lima, bush..... | ½ to 1 pt.....                        | 18 to 24                 | 4 to 6.....         | 1.....                         | May and June.....                                                           | 60 to 90..                       |
| Beans, Lima, pole..... | ½ pt.....                             | 36 to 48                 | Hills 24 to 36..... | 1.....                         | April to August.....                                                        | 60 to 80..                       |
| Beets.....             | 2 oz.....                             | 12 to 18                 | 5 or 6 to ft.....   | 1 to 2.....                    | April to July.....                                                          | 60 to 80..                       |
| Brussels Sprouts.....  | ¼ oz.....                             | 24 to 30                 | 16 to 24.....       | ½.....                         | April to August.....                                                        | 60 to 80..                       |
| Cabbage, early.....    | ¼ oz.....                             | 24 to 30                 | 12 to 18.....       | ½.....                         | March and April. (Start in hotbed during February).....                     | 90 to 130                        |
| Cabbage, late.....     | ¼ oz.....                             | 24 to 36                 | 16 to 24.....       | ½.....                         | May and June.....                                                           | 90 to 130                        |
| Carrot.....            | 1 oz.....                             | 18 to 24                 | 6 or 8 to ft.....   | ½.....                         | April to June.....                                                          | 75 to 110                        |
| Cauliflower.....       | 1 packet.....                         | 24 to 30                 | 14 to 18.....       | ½.....                         | April to June. (Start in hotbed during February or March).....              | 100 to 130                       |
| Celery.....            | ¼ oz.....                             | 18 to 36                 | 4 to 8.....         | ½.....                         | May and June. (Start in hotbed during March or April).....                  | 120 to 150                       |
| Chard.....             | ½ oz.....                             | 18 to 24                 | 4 to 6 to ft.....   | ½.....                         | April to July.....                                                          | 60 to 80..                       |
| Corn, sweet.....       | ½ pt.....                             | 30 to 36                 | 30 to 36.....       | 1 to 2.....                    | May to July.....                                                            | 60 to 100                        |
| Cress, upland.....     | ½ oz.....                             | 12 to 18                 | 4 or 5 to ft.....   | ½ to 1.....                    | March to May.....                                                           | 30 to 40..                       |
| Cucumber.....          | ½ oz.....                             | 48 to 72                 | 48 to 72.....       | 1.....                         | April to July.....                                                          | 60 to 80..                       |
| Eggplant.....          | 1-3 oz.....                           | 24 to 36                 | 18 to 24.....       | ½ to 1.....                    | April and May. (Start in hotbed during March).....                          | 100 to 140                       |
| Endive.....            | 1 oz.....                             | 18.....                  | 8 to 10.....        | ½.....                         | Midsummer.....                                                              | 90 to 180                        |
| Horse-radish.....      | 70 roots.....                         | 24 to 30                 | 4 to 6.....         | 3 to 4.....                    | Early spring.....                                                           | 1 to 2 yrs.                      |
| Kale.....              | ½ oz.....                             | 18 to 24                 | 6 to 8.....         | ½.....                         | August and September.....                                                   | 90 to 120                        |
| Kohl-rabi.....         | ¼ oz.....                             | 18 to 24                 | 4 to 6.....         | ½.....                         | April to August.....                                                        | 60 to 80..                       |
| Lettuce.....           | ½ oz.....                             | 12 to 18                 | 4 to 6.....         | ½.....                         | March to September.....                                                     | 60 to 90..                       |
| Muskmelon.....         | ¼ oz.....                             | 72 to 96                 | Hills 72.....       | 1.....                         | April to June. (Start early plants in hotbed during March).....             | 120 to 150                       |
| Okra, or gumbo.....    | 2 oz.....                             | 36 to 48                 | 24 to 30.....       | 1 to 2.....                    | May and June.....                                                           | 60 to 90..                       |
| Onion, seed.....       | 1 oz.....                             | 12 to 18                 | 5 or 10 to ft.....  | ½ to 1.....                    | April and May.....                                                          | 130 to 150                       |
| Onion, sets.....       | 1 qt.....                             | 12 to 18                 | 4 or 5 to ft.....   | 1 to 2.....                    | Autumn and March to May.....                                                | 90 to 120                        |
| Parsley.....           | ¼ oz.....                             | 12 to 18                 | 3 to 6.....         | ½.....                         | Early spring and September.....                                             | 90 to 120                        |
| Parsnip.....           | ½ oz.....                             | 18 to 24                 | 4 or 6 to ft.....   | ½ to 1.....                    | April and May.....                                                          | 125 to 160                       |
| Peas.....              | 1 to 2 pt.....                        | 36 to 48                 | 15 to ft.....       | 3 to 4.....                    | March to June.....                                                          | 40 to 80..                       |
| Pepper.....            | ½ oz.....                             | 18 to 24                 | 15 to 18.....       | ½.....                         | May and June. (Start early plants in hotbed during March).....              | 100 to 140                       |
| Potato, Irish.....     | 5 lbs.....                            | 24 to 36                 | 14 to 18.....       | 3 for early<br>5 for late..... | March to June.....                                                          | 80 to 140                        |
| Potato, sweet.....     | 75 slips.....                         | 36 to 60                 | 14.....             | 2 to 3.....                    | March to June.....                                                          | 100 to 130                       |
| Pumpkin.....           | ½ oz.....                             | 96 to 144                | 96 to 144.....      | 1.....                         | May.....                                                                    | 100 to 140                       |
| Radish.....            | 1 oz.....                             | 12 to 18                 | 8 or 12 to ft.....  | ½.....                         | March to September.....                                                     | 20 to 40..                       |
| Rhubarb, plants.....   | 33.....                               | 36 to 60                 | 36 to 48.....       | *NOTE                          | Early spring.....                                                           | 1 to 3 yrs.                      |
| Rutabaga.....          | ¼ oz.....                             | 18 to 24                 | 6 to 8.....         | ½ to 1.....                    | May and June.....                                                           | 60 to 80..                       |
| Salsify.....           | ½ oz.....                             | 18 to 24                 | 2 to 4.....         | ½.....                         | Early Spring.....                                                           | 120 to 180                       |
| Spinach.....           | 1 oz.....                             | 12 to 18                 | 7 or 8 to ft.....   | 1 to 2.....                    | September or very early spring.....                                         | 30 to 60..                       |
| Squash, bush.....      | ½ oz.....                             | 36 to 48                 | Hills 36-48.....    | 1.....                         | April to June.....                                                          | 60 to 80..                       |
| Squash, late.....      | ½ oz.....                             | 84 to 120                | Hills 84-108.....   | 1.....                         | April to June.....                                                          | 120 to 160                       |
| Tomato, seed.....      | ½ oz.....                             | 36 to 48                 | 30 to 36.....       | ½ to 1.....                    | May and June. (Start early plants in hotbed during February and March)..... | 100 to 140                       |
| Tomato, plants.....    | 33 to 40.....                         | 36 to 48                 | 30 to 36.....       | 1.....                         | May and June.....                                                           | 80 to 100                        |
| Turnip.....            | ½ oz.....                             | 18 to 24                 | 6 or 7 to ft.....   | ¼ to ½.....                    | April and August.....                                                       | 90 to 80..                       |
| Veg. marrow.....       | ½ oz.....                             | 96 to 144                | Hills 96-108.....   | 1 to 2.....                    | April to June.....                                                          | 110 to 140                       |
| Watermelon.....        | ½ oz.....                             | 96 to 120                | 96 to 120.....      | 1.....                         | May.....                                                                    | 100 to 120                       |

\*NOTE—Set Rhubarb plants so that growing tips are at surface of ground.

Absolute dates for planting can not be given, because of variations in seasons from year to year and varying climatic conditions in different sections. For general guidance, see "When to Plant" on Page 41.

## HELPFUL HINTS

One tablespoonful of vinegar in a basin of hot water for washing windows, mirrors, etc., changes a task to a pleasure.

Boil some vinegar in the teakettle to remove lime.

A cracked egg may be boiled if wrapped in soft paper.

If boiled custard turns watery, beat with Dover beater. If that fails, add 2 tablespoons cold milk and try again.

Rinse anything milky in cold water first. Hot water coagulates the albumen and it adheres.

Coat bottom crust of pie with white of egg and it will not become sodden.

Put sugar into pies first and fruit on top and juice will not boil out.

A pinch of tartar emetic and a pinch of sugar in water in a jelly glass lid will drive away ants of any kind.

Dip a knife in boiling water till heated to use for cutting warm bread or cake, hard boiled eggs, fudge or caramel candy.

Dip your velvet brush in moist sand, and the velvet comes forth as fresh as though it were new. It is a cleaning process, too, for the slight moisture removes dust, and the harsh action of the sandy friction gives new life to the 'nap' which has been worn down.

### ANTIDOTES FOR POISONS.

**First**—Send for a Physician.

**Second**—Induce vomiting by tickling throat with feather or finger; drinking hot water or strong mustard and water. Swallow sweet oil or whites of eggs.

Acids are antidotes for Alkalies, and vice versa.

### SPECIAL POISONS AND ANTIDOTES.

**Acids**—Muriatic, Oxalic, Acetic, { Soap-suds, mag-  
Sulphuric, (Oil of Vitriol), Nitric { nesia, lime-  
(Aqua Forte). { water.

**Prussic Acid**—Ammonia in water. Dash water in face.

**Carbolic Acid**—Flour and water, mucilaginous drinks.

**Alkalies**—Potash, Lye, Harts- { Vinegar or Lemon  
horn, Ammonia. { juice in water.

**Arsenic**—Rat Poison, { Milk, raw egg, sweet oil, lime  
Paris Green. { water, flour and water.

**Bug Poison**—Lead, Saltpeter, Cor- { Whites of eggs,  
rosive Sublimite, Sugar of Lead, { or milk in  
Blue Vitriol. { large doses.

**Chloroform**— { Dash Cold Water on Head and  
Chloral, Ether. { Chest. Artificial Respiration.

**Carbonate of Soda**— { Soap-suds and mucilaginous  
Copperas, Cobalt. { drinks.

**Iodine**—Antimony, { Starch and water, astrigent in  
Tartar Emetic. { fushions, strong tea.

**Mercury and its Salts**— { Whites of eggs, milks,  
mucilages.

**Opium**—Morphine, Laudan- { Strong coffee, hot bath.  
um, Paregoric, Soothing { Keep awake and mov-  
Powders or Syrups. { ing at any cost.

**Nitrate of Silver**— { Salt and Water.  
Lunar Caustic.

**Strychnine**— { Mustard and water. Sul-  
Tinc. of Nux Vomica. { phate of Zinc. Absolute  
quiet. Plug the ears.

### WEIGHTS AND MEASURES.

#### Troy Weight

24 grains = 1 pwt. 12 ounces = 1 pound.  
20 pwts. = 1 ounce.

Used for weighing gold, silver and jewels.

#### Apothecaries' Weight.

20 grains = 1 scruple. 8 drams = 1 ounce.  
3 scruples = 1 dram. 12 ounces = 1 pound.

The ounce and pound in this are the same as in Troy Weight.

#### Avoirdupois Weight.

16 drams = 1 ounce. 4 quarters = 1 cwt.  
16 ounces = 1 pound. 2,000 lbs. = 1 short ton.  
25 pounds = 1 quarter. 2,240 lbs. = 1 long ton.

#### Dry Measure.

2 pints = 1 quart. 4 pecks = 1 bushel.  
8 quarts = 1 peck. 36 bushels = 1 chaldron.

#### Liquid Measure.

4 gills = 1 pint. 31 1/2 gallons = 1 barrel.  
2 pints = 1 quart. 2 barrels = 1 hogshead.  
4 quarts = 1 gallon.

#### Time Measure.

60 seconds = 1 minute. 24 hours = 1 day.  
60 minutes = 1 hour. 7 days = 1 week.  
28, 29, 30 or 31 days = 1 calendar month (30 days = 1  
month in computing interest). 366 days = 1 leap year.

#### Circular Measure.

60 seconds = 1 minute. 30 degrees = 1 sign.  
60 minutes = 1 degree. 90 degrees = 1 quadrant.  
4 quadrants = 12 signs, or 360 degrees = 1 circle.

#### Long Measure.

12 inches = 1 foot. 4 rods = 1 furlong.  
3 feet = 1 yard. 8 furlongs = 1 sta. mile.  
5 1/2 yards = 1 rod. 3 miles = 1 league.

#### Cloth Measure.

2 1/2 inches = 1 nail. 4 quarters = 1 yard.  
4 nails = 1 quarter.

#### Mariners' Measure.

6 feet = 1 fathom. 5,280 feet = 1 stat. mile.  
20 fathoms = 1 cable le'th. 6,085 ft. = 1 naut. mile.  
7 1/2 cable lengths = 1 mile.

#### Miscellaneous.

3 inches = 1 palm. 18 inches = 1 cubit.  
4 inches = 1 hand. 21.8 in. = 1 Bible cubit.  
6 inches = 1 span. 2 1/2 feet = 1 military pace

#### Square Measure.

144 sq. inches = 1 sq. ft. 40 sq. rods = 1 rood.  
9 sq. feet = 1 sq. yard. 4 rods = 1 acre.  
30 1/2 sq. yds. = 1 sq. rod. 640 acres = 1 sq. mile.





| JANUARY |    |    |    |    |    |    | FEBRUARY |    |    |    |    |    |    | MARCH |    |    |    |    |    |    | APRIL |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|----------|----|----|----|----|----|----|-------|----|----|----|----|----|----|-------|----|----|----|----|----|----|
| S       | M  | T  | W  | T  | F  | S  | S        | M  | T  | W  | T  | F  | S  | S     | M  | T  | W  | T  | F  | S  | S     | M  | T  | W  | T  | F  | S  |
| ..      | .. | .. | 1  | 2  | 3  | 4  | ..       | .. | .. | .. | .. | .. | 1  | ..    | .. | .. | .. | .. | .. | 1  | ..    | .. | 1  | 2  | 3  | 4  | 5  |
| 5       | 6  | 7  | 8  | 9  | 10 | 11 | 2        | 3  | 4  | 5  | 6  | 7  | 8  | 2     | 3  | 4  | 5  | 6  | 7  | 8  | 6     | 7  | 8  | 9  | 10 | 11 | 12 |
| 12      | 13 | 14 | 15 | 16 | 17 | 18 | 9        | 10 | 11 | 12 | 13 | 14 | 15 | 9     | 10 | 11 | 12 | 13 | 14 | 15 | 13    | 14 | 15 | 16 | 17 | 18 | 19 |
| 19      | 20 | 21 | 22 | 23 | 24 | 25 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 16    | 17 | 18 | 19 | 20 | 21 | 22 | 20    | 21 | 22 | 23 | 24 | 25 | 26 |
| 26      | 27 | 28 | 29 | 30 | 31 | .. | 23       | 24 | 25 | 26 | 27 | 28 | .. | 23    | 24 | 25 | 26 | 27 | 28 | 29 | 27    | 28 | 29 | 30 | .. | .. | .. |
| ..      | .. | .. | .. | .. | .. | .. | ..       | .. | .. | .. | .. | .. | .. | 30    | 31 | .. | .. | .. | .. | .. | ..    | .. | .. | .. | .. | .. | .. |

| MAY |    |    |    |    |    |    | JUNE |    |    |    |    |    |    | JULY |    |    |    |    |    |    | AUGUST |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|------|----|----|----|----|----|----|------|----|----|----|----|----|----|--------|----|----|----|----|----|----|
| S   | M  | T  | W  | T  | F  | S  | S    | M  | T  | W  | T  | F  | S  | S    | M  | T  | W  | T  | F  | S  | S      | M  | T  | W  | T  | F  | S  |
| ..  | .. | .. | .. | 1  | 2  | 3  | 1    | 2  | 3  | 4  | 5  | 6  | 7  | ..   | .. | 1  | 2  | 3  | 4  | 5  | ..     | .. | .. | .. | 1  | 2  | .. |
| 4   | 5  | 6  | 7  | 8  | 9  | 10 | 8    | 9  | 10 | 11 | 12 | 13 | 14 | 6    | 7  | 8  | 9  | 10 | 11 | 12 | 3      | 4  | 5  | 6  | 7  | 8  | 9  |
| 11  | 12 | 13 | 14 | 15 | 16 | 17 | 15   | 16 | 17 | 18 | 19 | 20 | 21 | 13   | 14 | 15 | 16 | 17 | 18 | 19 | 10     | 11 | 12 | 13 | 14 | 15 | 16 |
| 18  | 19 | 20 | 21 | 22 | 23 | 24 | 22   | 23 | 24 | 25 | 26 | 27 | 28 | 20   | 21 | 22 | 23 | 24 | 25 | 26 | 17     | 18 | 19 | 20 | 21 | 22 | 23 |
| 25  | 26 | 27 | 28 | 29 | 30 | 31 | 29   | 30 | .. | .. | .. | .. | .. | 27   | 28 | 29 | 30 | 31 | .. | .. | 24     | 25 | 26 | 27 | 28 | 29 | 30 |
| ..  | .. | .. | .. | .. | .. | .. | ..   | .. | .. | .. | .. | .. | .. | ..   | .. | .. | .. | .. | .. | .. | 31     | .. | .. | .. | .. | .. | .. |

| SEPTEMBER |    |    |    |    |    |    | OCTOBER |    |    |    |    |    |    | NOVEMBER |    |    |    |    |    |    | DECEMBER |    |    |    |    |    |    |
|-----------|----|----|----|----|----|----|---------|----|----|----|----|----|----|----------|----|----|----|----|----|----|----------|----|----|----|----|----|----|
| S         | M  | T  | W  | T  | F  | S  | S       | M  | T  | W  | T  | F  | S  | S        | M  | T  | W  | T  | F  | S  | S        | M  | T  | W  | T  | F  | S  |
| ..        | 1  | 2  | 3  | 4  | 5  | 6  | ..      | .. | .. | 1  | 2  | 3  | 4  | ..       | .. | .. | .. | .. | .. | 1  | ..       | 1  | 2  | 3  | 4  | 5  | 6  |
| 7         | 8  | 9  | 10 | 11 | 12 | 13 | 5       | 6  | 7  | 8  | 9  | 10 | 11 | 2        | 3  | 4  | 5  | 6  | 7  | 8  | 7        | 8  | 9  | 10 | 11 | 12 | 13 |
| 14        | 15 | 16 | 17 | 18 | 19 | 20 | 12      | 13 | 14 | 15 | 16 | 17 | 18 | 9        | 10 | 11 | 12 | 13 | 14 | 15 | 14       | 15 | 16 | 17 | 18 | 19 | 20 |
| 21        | 22 | 23 | 24 | 25 | 26 | 27 | 19      | 20 | 21 | 22 | 23 | 24 | 25 | 16       | 17 | 18 | 19 | 20 | 21 | 22 | 21       | 22 | 23 | 24 | 25 | 26 | 27 |
| 28        | 29 | 30 | .. | .. | .. | .. | 26      | 27 | 28 | 29 | 30 | 31 | .. | 23       | 24 | 25 | 26 | 27 | 28 | 29 | 28       | 29 | 30 | 31 | .. | .. | .. |
| ..        | .. | .. | .. | .. | .. | .. | ..      | .. | .. | .. | .. | .. | .. | 30       | .. | .. | .. | .. | .. | .. | ..       | .. | .. | .. | .. | .. | .. |

**NOTES**

| JANUARY |    |    |    |    |    |    | FEBRUARY |    |    |    |    |    |    | MARCH |    |    |    |    |    |    | APRIL |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|----------|----|----|----|----|----|----|-------|----|----|----|----|----|----|-------|----|----|----|----|----|----|
| S       | M  | T  | W  | T  | F  | S  | S        | M  | T  | W  | T  | F  | S  | S     | M  | T  | W  | T  | F  | S  | S     | M  | T  | W  | T  | F  | S  |
| ..      | .. | .. | .. | 1  | 2  | 3  | 1        | 2  | 3  | 4  | 5  | 6  | 7  | ..    | 1  | 2  | 3  | 4  | 5  | 6  | ..    | .. | .. | .. | 1  | 2  | 3  |
| 4       | 5  | 6  | 7  | 8  | 9  | 10 | 8        | 9  | 10 | 11 | 12 | 13 | 14 | 7     | 8  | 9  | 10 | 11 | 12 | 13 | 4     | 5  | 6  | 7  | 8  | 9  | 10 |
| 11      | 12 | 13 | 14 | 15 | 16 | 17 | 15       | 16 | 17 | 18 | 19 | 20 | 21 | 14    | 15 | 16 | 17 | 18 | 19 | 20 | 11    | 12 | 13 | 14 | 15 | 16 | 17 |
| 18      | 19 | 20 | 21 | 22 | 23 | 24 | 22       | 23 | 24 | 25 | 26 | 27 | 28 | 21    | 22 | 23 | 24 | 25 | 26 | 27 | 18    | 19 | 20 | 21 | 22 | 23 | 24 |
| 25      | 26 | 27 | 28 | 29 | 30 | 31 | 29       | .. | .. | .. | .. | .. | .. | 28    | 29 | 30 | 31 | .. | .. | .. | 25    | 26 | 27 | 28 | 29 | 30 | .. |
| ..      | .. | .. | .. | .. | .. | .. | ..       | .. | .. | .. | .. | .. | .. | ..    | .. | .. | .. | .. | .. | .. | ..    | .. | .. | .. | .. | .. | .. |

| MAY |    |    |    |    |    |    | JUNE |    |    |    |    |    |    | JULY |    |    |    |    |    |    | AUGUST |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|------|----|----|----|----|----|----|------|----|----|----|----|----|----|--------|----|----|----|----|----|----|
| S   | M  | T  | W  | T  | F  | S  | S    | M  | T  | W  | T  | F  | S  | S    | M  | T  | W  | T  | F  | S  | S      | M  | T  | W  | T  | F  | S  |
| ..  | .. | .. | .. | .. | .. | 1  | ..   | .. | 1  | 2  | 3  | 4  | 5  | ..   | .. | .. | .. | 1  | 2  | 3  | 1      | 2  | 3  | 4  | 5  | 6  | 7  |
| 2   | 3  | 4  | 5  | 6  | 7  | 8  | 6    | 7  | 8  | 9  | 10 | 11 | 12 | 4    | 5  | 6  | 7  | 8  | 9  | 10 | 8      | 9  | 10 | 11 | 12 | 13 | 14 |
| 9   | 10 | 11 | 12 | 13 | 14 | 15 | 13   | 14 | 15 | 16 | 17 | 18 | 19 | 11   | 12 | 13 | 14 | 15 | 16 | 17 | 15     | 16 | 17 | 18 | 19 | 20 | 21 |
| 16  | 17 | 18 | 19 | 20 | 21 | 22 | 20   | 21 | 22 | 23 | 24 | 25 | 26 | 18   | 19 | 20 | 21 | 22 | 23 | 24 | 22     | 23 | 24 | 25 | 26 | 27 | 28 |
| 23  | 24 | 25 | 26 | 27 | 28 | 29 | 27   | 28 | 29 | 30 | .. | .. | .. | 25   | 26 | 27 | 28 | 29 | 30 | 31 | 29     | 30 | 31 | .. | .. | .. | .. |
| 30  | 31 | .. | .. | .. | .. | .. | ..   | .. | .. | .. | .. | .. | .. | ..   | .. | .. | .. | .. | .. | .. | ..     | .. | .. | .. | .. | .. | .. |

| SEPTEMBER |    |    |    |    |    |    | OCTOBER |    |    |    |    |    |    | NOVEMBER |    |    |    |    |    |    | DECEMBER |    |    |    |    |    |    |   |
|-----------|----|----|----|----|----|----|---------|----|----|----|----|----|----|----------|----|----|----|----|----|----|----------|----|----|----|----|----|----|---|
| S         | M  | T  | W  | T  | F  | S  | S       | M  | T  | W  | T  | F  | S  | S        | M  | T  | W  | T  | F  | S  | S        | M  | T  | W  | T  | F  | S  |   |
| ..        | .. | .. | .. | 1  | 2  | 3  | ..      | .. | .. | .. | .. | .. | 1  | ..       | 1  | 2  | 3  | 4  | 5  | 6  | ..       | .. | .. | .. | 1  | 2  | 3  | 4 |
| 5         | 6  | 7  | 8  | 9  | 10 | 11 | 3       | 4  | 5  | 6  | 7  | 8  | 9  | 7        | 8  | 9  | 10 | 11 | 12 | 13 | 5        | 6  | 7  | 8  | 9  | 10 | 11 |   |
| 12        | 13 | 14 | 15 | 16 | 17 | 18 | 10      | 11 | 12 | 13 | 14 | 15 | 16 | 14       | 15 | 16 | 17 | 18 | 19 | 20 | 12       | 13 | 14 | 15 | 16 | 17 | 18 |   |
| 19        | 20 | 21 | 22 | 23 | 24 | 25 | 17      | 18 | 19 | 20 | 21 | 22 | 23 | 21       | 22 | 23 | 24 | 25 | 26 | 27 | 19       | 20 | 21 | 22 | 23 | 24 | 25 |   |
| 26        | 27 | 28 | 29 | 30 | .. | .. | 24      | 25 | 26 | 27 | 28 | 29 | 30 | 28       | 29 | 30 | .. | .. | .. | .. | 26       | 27 | 28 | 29 | 30 | 31 | .. |   |
| ..        | .. | .. | .. | .. | .. | .. | 31      | .. | .. | .. | .. | .. | .. | ..       | .. | .. | .. | .. | .. | .. | ..       | .. | .. | .. | .. | .. | .. |   |



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**FORTUNE FOUNDERS**

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**SEATTLE**