

# UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE

Extension Division

THOMAS P. COOPER, Dean and Director

---

CIRCULAR NO. 343

---

THE GARDEN, MONTH BY MONTH



An October garden: Chinese cabbage, late cabbage, kale and turnips.

---

Lexington, Kentucky

May, 1940

---

Published in connection with the agricultural extension work carried on by cooperation of the College of Agriculture, University of Kentucky, with the U. S. Department of Agriculture and distributed in furtherance of the work provided for in the Act of Congress of May 8, 1914.

Kind and when planted	Time of use												
	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
<b>MARCH</b>													
Peas .....			—————	—————									
Lettuce .....	—————	—————											
Onions .....	—————	—————				-----							
Greens .....	—————	—————											
Parsnips** .....								—————	—————	—————	—————	—————	—————
Radishes .....	—————	—————	—————	—————									
Cabbage .....			—————	—————	—————								
Potatoes .....								—————	—————	—————			
<b>APRIL</b>													
Cauliflower ..			—————	—————									
Broccoli .....			—————	—————									
Beets .....		—————	—————	—————	—————	—————							
Carrots** .....		—————	—————	—————	—————	—————							
Beans .....		—————	—————	—————	—————	—————							
Corn .....			—————	—————									
<b>MAY</b>													
Corn .....				—————	—————								
Beans .....				—————	—————								
Tomatoes .....				—————	—————	—————							
Peppers .....				—————	—————	—————	—————						
Eggplants .....				—————	—————	—————	—————						
Watermelons ..				—————	—————	—————	—————						
Squashes** .....				—————	—————	—————	—————	-----	-----				
Okra .....				—————	—————	—————	—————						
Sweetpotatoes ..								-----	-----				
<b>JUNE</b>													
Tomatoes* .....					—————	—————	—————	—————	—————	—————	—————	—————	—————
Beans* .....					—————	—————	—————	—————	—————	—————	—————	—————	—————
Corn* .....					—————	—————	—————	—————	—————	—————	—————	—————	—————
Beets** .....					—————	—————	—————	—————	—————	—————	—————	—————	—————
<b>JULY</b>													
Cabbage** .....										-----	-----	-----	-----
Beans* .....										-----	-----	-----	-----
<b>AUGUST</b>													
Beans .....								-----	-----				
Greens .....								-----	-----				
Cover crop .....								-----	-----				
<b>SEPTEMBER</b>													
Greens .....										-----	-----	-----	-----
Turnips** .....										-----	-----	-----	-----
<b>COVER CROP</b>													
<b>OCTOBER</b>													
Greens .....										-----	-----	-----	-----
Turnips ..										-----	-----	-----	-----
<b>COVER CROP</b>													
<b>NOVEMBER</b>													
Greens (?) .....										-----	-----	-----	-----

\* Canning surplus.    \*\* Winter storing supply.



Circular No. 343

THE GARDEN, MONTH BY MONTH

By JOHN S. GARDNER

JANUARY

*Plowing.* Gardens that were left bare last fall should be plowed before the end of this month, with a heavy coat of manure turned under. The benefits that follow winter breaking are many. The freezings and thawings that occur tend to make the soil loose and porous. The manure turned under is given opportunity to break down into humus, soil conditioner, and to release its plant food in condition for the vegetables to use. Further, a broken soil surface is better able to absorb the late winter rains and snows. Most gardeners plow too shallow and thus do not make seedbeds deep enough to store moisture sufficient for the crops to bridge over from one shower to the next, later. When it is recalled that most of Kentucky's moisture falls in the winter, the importance of winter breaking becomes apparent.

A good depth is 10 inches, quite within the possibilities of the customary farm equipment. If the custom has been to plow less than that, the 10-inch depth should be approached an inch a year, lest enough subsoil be turned up to weaken the richer top soil. Always, plenty of stable manure should be turned under.

*Start (in hotbed) \*—*

Cabbage: Early Jersey Wakefield, Golden Acre or Copenhagen Market; or, in gardens where wilt is troublesome, Yellow-resistant Early Jersey, Marion Market or All Seasons.

Broccoli: Calabrian Green Sprouting.

Cauliflower: Snowball (or any other small, early sort).

FEBRUARY

*Planning.* No enterprise is likely to succeed unless it is planned thru, and a garden is no exception. Planning should begin with the preparation of a food budget, a schedule showing the list of the vegetables to be used, with the number of times a week they are to be served, and the amounts that constitute servings. The extent of the plantings is governed by the size of the family and of the vegetable list, by its likes and dislikes, but always a few "new"

\* Full information concerning hotbeds is found in Kentucky Extension Circular 276. Detailed directions for all the garden practices are found in Kentucky Extension Circular 309. Both these publications may be obtained free of County Agents or Home Agents, or by writing the College of Agriculture at Lexington.

vegetables should be included, for variety is the spice of the garden. A seed catalogue should be at hand so that no vegetables are overlooked.

Next, the garden spot should be measured and an exact map made on paper, to show its shape and extent, walks, rows of perennials, location of nearby trees whose root competition or whose shade might affect the vegetables. Also "early" and "late" spots and any other salient features should be shown.

If it proves troublesome to work out a food budget, a passable one may be made by doubling the quantities of staple vegetables given on page 37, Kentucky Extension Circular No. 314, "Home Canning," and then, by aid of the Table on page 38 of the same circular, "translating" into numbers of bushels of the various vegetables needed for the year.

Having arrived at the amounts of the vegetables needed to fill the budget, the next step is to determine garden space needed to produce them. This is done with the help of column 7, Table 3, on page 9 of Extension Circular No. 309, The Vegetable Garden. All that remains is to sketch the required vegetable rows on the map. It should be kept in mind that successive plantings of beans, sweet corn, tomatoes and cabbage are to be made. Hints as to crop arrangement and succession are given on pages 3 to 5, in Circular No. 309.

For those who find all this too complicated, a list of the basic vegetables is given, together with the extent of each needed to produce a supply sufficient for a family of 5 persons to have 20 servings per week of fresh vegetables in season, and 12 per week during the rest of the year. This garden covers less than one-fifth acre, particularly if care is taken to practice succession planting. If desired, eggplants, peppers, cucumbers, cushaws, cantaloupes, watermelons, broccoli, cauliflower, celery and perhaps others may be added to this list. By so doing the area of the garden becomes a trifle over  $\frac{1}{4}$  acre.

Having "budgeted" the extent or garden space, the seed list may be made, consulting Table 3, Circular 309, and the list of varieties that appears at the head of the discussion of each vegetable, thruout that circular.

*Plowing.* If the weather was not favorable during January for plowing gardens standing bare, February is not too late, but endeavor should be made to get this work done 6 weeks before seed beds are to be made. Likewise, gardens under cover crop should be broken, after having been cut line with a disk harrow. It may



be possible so to plan that the part of the garden which is to receive "warm" vegetables (tomatoes, peppers, etc.) can be left unbroken for the present, to give time for the cover crop to make more growth.

**Typical planting for a family of five.**

Vegetable	Number of plantings	Feet of row
Peas .....	2	200
Onions .....	1	150
Greens (Spring) .....	2	150
Greens (Summer) .....	1	50
Greens (Fall) .....	3	300
Cabbage (Early) .....	1	150
Cabbage (Late) .....	1	200
Beets .....	2	150
Carrots .....	1	150
Beans .....	6	350
Tomatoes .....	2	75 plants
Sweet corn .....	5	700
Turnips .....	2	150

The chart on page 2 shows how an adequate garden should behave. It is used in this wise. At the extreme left are shown the names of the months and of the vegetables that should go into the garden in each month. Across the top of the chart are names of the months, beginning with April. The black lines show the approximate time that each vegetable can be used, both fresh and from storage or cans. Thus, early cabbage, set in March, ordinarily becomes usable in mid-June. Late cabbage, set in July, matures at frost, then goes into storage to be used November thru February or until the supply is exhausted. Beans planted in June, double plantings, make table beans from mid-August to mid-September, and a surplus to use, canned, from frost to December 31, when the canned surplus from the July plantings may be used until new beans come in, next season, and so on.

*Start (in hotbed)—*

Lettuce: New York or Wonderful, or Bibb.

Tomatoes: Break o' Day or Pritchard.

Peppers: California Wonder or Ruby Giant and Chili or Birdseye (hot).

Eggplants: New York Improved.

*Reset in hotbed, 2 inches each way—cabbage, broccoli and cauliflower, started in January.*

### MARCH

*Seedbed Preparation.* With the garden broken, all that needs to be done is to cut it thoroly with a disk, then drag it smooth. The object when making a seedbed is to have the soil particles as fine as the smallest seed to be sown.

*Fertilizing.* In addition to the manure plowed under, fertilizer should be used. Outside the Bluegrass Region, this may be merely 20 percent superphosphate but a complete fertilizer (4-8-8, 5-10-5) will make the crops better; 100 pounds of superphosphate or 200 pounds of complete fertilizer is the amount for a garden 100 feet square. All fertilizer should be broadcast after the land is plowed and disked in before the final dragging.

*Set—*

Asparagus: Martha Washington.

Cabbage, cauliflower, broccoli; for varieties, see January.

Rhubarb: MacDonald, Linnaeus, Victoria.

Onions: Yellow or white sets or those of the Ebenezer variety, or use "slips" of Silverskin, Prizetaker or Bermuda.

Lettuce: for varieties, see February.

*Plant—*

Radishes: White Tip Scarlet, Rapid Red.

Turnips: Purple Top Strap-leaved.

Mustard: Southern Curled.

Spinach: Bloomsdale Savoy.

Lettuce: Grand Rapids.

Peas: Alaska or Radio.

Rape: Dwarf Essex, sometimes called "smooth kale."

Toward the end of the month, SIDE-DRESS cabbage, broccoli, cauliflower, lettuce and onions, with nitrate of soda, 1 pound to 10 feet of row, or with pulverized, dried chicken manure, 1 bushel to 300 feet.

### APRIL

*Plant—*

Sweetcorn: Early Adams (15th).

Carrots: Chantenay.

Beets: Crosby's Egyptian, Eclipse.

Spinach: Savoy. After the 15th, Long Standing, New Zealand.

Swiss chard: Lucullus.

Beans: Valentine, Stringless Greenpod, 15th and 30th.

Cucumbers: Long Green, for both picklers and slicers; or use

Boston Pickling and Arlington, or any other white spine.

Cantaloupes: Early Hackensack, after 15th.



Set—Cauliflower: Snowball.

Broccoli: Green Sprouting.

Sow—Late tomatoes in a bed, under cover: Marglobe or Baltimore.

Bed—Sweetpotatoes: Nancy Hall, Porto Rico or Southern Queen.

Side-Dress — Cabbage, cauliflower, broccoli and onions with chicken-manure, 1 bushel to 300 feet of row, or with nitrate of soda, 1 pound to 300 feet, twice.

Insects. In this month and to continue thruout the season, begins the campaign against garden pests. As to the nature of the damage they do, they fall into two classes, the leaf-eating insects and those that live on plant sap. Controlling them is not difficult if the following recommendations are kept in mind.

1. Use the right materials.
2. Apply them in the right way.
3. Begin at the right time and follow schedules strictly.

Leaf-eating Insects. General control for all leaf-eating insects is by poison placed where they feed, but if plant parts are affected that are to be used for human food, poison dare not be used, but rotenone should be applied instead, as it is considered harmless to humans when taken internally in small quantity. The controls for the more usual insects follow, but these apply also to those not named, if the damage they do is similar.

Cabbage Worms. Beginning when the first "cabbage butterflies" are seen and repeating every few days until heading starts, dust with the following mixture:

- Paris green, 1 pound
- Lead arsenate, 1 pound
- Hydrated lime, 12 pounds

After cabbage begins to head, and on cauliflower, broccoli, and greens, ALWAYS dust with ready-prepared rotenone dust, 1 to 1½ percent.

Potato Beetle. Beginning when the first "hardshells" are seen, dust with the mixture recommended for cabbage, or with:

- Calcium arsenate, 1 pound
- Hydrated lime, 6 pounds

Or, beginning at the same time, spray with:

- Lead arsenate, 2 level tablespoons
- Water, 1 gallon

Cucumber Beetle. These insects winter over in garden trash or in any brush. As the seedlings come up, the beetles enter cracks

in the soil to lay eggs from which hatch worms that injure and sometimes destroy the seedlings or, later, the plants as they begin blooming. Obviously, control must begin before the beetles enter the soil. Thus, beginning when the soil begins to heave, dust the middles of the hills with:

Calcium arsenate, 1 pound

Gypsum, or "gypsum hard-coat plaster," 16 pounds

And REPEAT every 3 days until at least 10 dustings have been given. It is profitable to give as many as 20 dustings, always at the center of the hill, giving 60 days' protection.

*Mexican Bean Beetle.* The adults spend the winter in any place that gives shelter. When the weather becomes warm, they go to the bean seedlings and lay eggs from which hatch the spiny "cockle burrs" that are so devastating. These always feed on the UNDER-SIDES of the leaves; the control material must be put there to be effective. This is the program.

Keep on the lookout for the FIRST egg clusters (on the undersides of the leaves) and, when they are found, IMMEDIATELY apply THERE any of the several ready-mixed dusts. Or mix your own as follows:

Calcium arsenate, 1 pound

Sulfur, 1 pound

Hydrated lime, 4 pounds

Or spray with:

Magnesium arsenate (42% actual metallic arsenic) 2 table-  
spoons.

Water, 1 gallon

THEN, 10 days after the first application, repeat, and perhaps again, in 10 days. If dusting or spraying must be done after bean pods appear, use rotenone dust or spray (made of extract) to avoid danger of poisoning.

*Sap-sucking Insects.* The sap-sucking insects are the plant lice and the "stink-bugs," or "squash bugs." Almost any of the vegetables may be attacked by either. Sometimes the tarnished plant bug is troublesome, but its damage is rarely serious. Inasmuch as these insects consume no foliage but draw sap from the deeper tissues, surface applications of poison cannot be effective against them. Rather, they must be controlled by materials that act by contact with their bodies. A well-known material is tobacco extract, manufactured or homemade, but its effective time is so short that it must be applied so as actually to hit the insects. It is well suited to the control of the plant lice but can also be used effectively



against the stink bugs while they are still in the immature, soft-bodied stage.

In the past several years, rotenone has been increasingly substituted in the control of sucking insects. It kills by paralyzing, and is effective for several days after it is applied. It kills plant lice readily and, if strong enough, the hard-shelled stink bugs also, but not the herlequin bug on cabbage and on the greens of the cabbage family. For the control of this insect handpicking is still best.

Directions for the control of sucking insects by means of tobacco are to use fresh spray (or dust) directly on the insects, and to spray again in 30 minutes if not all are killed. Rotenone, too, should be applied (spray or dust) when the insects are seen, but if coverage is complete, continued killing is assured for several days, because rotenone holds its potency longer.

### MAY

#### *Plant—*

Sweet corn: Golden Cross Bantam, Howling Mob (1st and 15th).

Cucumbers: Long Green or Straight Eight, or any white spine; for pickling, Boston or Chicago Pickle.

Cantaloupes: Rocky Ford, Hale's Best, Hearts of Gold or Tip Top.

Squashes (cymbblings): White Scalloped, Summer Straightneck.

Squashes (storing): Green Striped Cushaw, Des Moines, Hubbard.

Watermelons: Stone Mountain, Kleckley or the resistant strains of these if watermelon wilt is suspected.

Summer spinach: New Zealand.

Okra: White or Green Velvet.

Beans: Stringless Greenpod, Pencil Pod Wax (15th and 30th).

Lima beans: King of the Garden, Sieva (pole); Yopp's Pole and Bush and Henderson Bush.

Summer lettuce: Cos Trianon.

*Set—*Tomatoes: Any early variety, or see February, particularly concerning wilt-resistant varieties.

*Start—* (in outside bed)—

Canning tomatoes: Greater Baltimore, Stone or Matchless.

Late cabbage: Drumhead or Copenhagen Market or Yellow-resistant Succession or All-Seasons.

Late broccoli: Calabrian.

Brussels sprouts: Danish Prize.

*Cultivation.* Doubtless, cultivating or "working" the garden has begun, but in this month this operation proceeds in real

earnest. Many gardeners stir their gardens as a matter of routine or because it is their habit, but there is no virtue in doing it for either reason, and no need for it, except to kill weeds. In fact, if weeds could be destroyed without stirring the soil at all, that would be all right, for several experiment stations have proved that snipping them off at the ground line gave just as good results, and even better results than deep stirring.

Another excuse for "working" the garden is to loosen run-together soil so that vegetable roots may penetrate it, but that is not a good reason. At best, stirring the soil does not correct the condition, and it may do harm, by disturbing or cutting off the roots. It has often been observed that for a few days after such "working" was done, there was wilting of the plants. In severe cases, permanent damage was done, but always there was set-back until new roots were formed to replace those injured. Therefore, inasmuch as the only object in cultivating at all is to control weeds, it is urged that when their removal makes it necessary, the soil surface be shaved or scratched just deep enough to remove the smaller ones, and to pull or cut off the larger ones. A 16-tooth garden harrow or a 5-tooth cultivator may be used, but without any weights. As for hand tools, nothing is better than a sharp hoe, used with a "scalping" or scraping motion. Likewise, the side-hoe attachment on a garden plow is excellent.

"Smothering" the weeds in the row by throwing a ridge over them is not always effective and may be harmful, for, in making ridges, soil must be borrowed from the middles and the moisture level may fall below root reach. Thus, in summary, let all cultivation be merely deep enough to upset the weeds, while still small. Also, let the surface stay level, no hilling and no ridging done, except possibly for potatoes, but then only to close the cracks the growing tubers make.

*Bordeaux Mixture.* A troublesome insect on potatoes coming up and on the vegetable plants in general is the black fleabeetle. It riddles the leaves with many fine holes, sometimes causing outright death, but always set-back. The best way to stop this insect is to spray with bordeaux mixture which is also the control for the blight diseases to which all the vegetables are more or less subject.

Bordeaux mixture is made of bluestone, lime and water, and the strength recommended is 4-4-50, which is to say, 4 pounds of bluestone, 4 pounds of hydrated lime and 50 gallons of water. It must be used fresh-mixed, as it spoils on standing, but not many gardeners are in a position to use 50 gallons at any one time. For



this reason, the following easy method for mixing so small an amount as 2½ gallons has been devised.

First, prepare "bluestone stock" by dissolving 1 pound of bluestone (blue vitriol) in 5 quarts of water. Bluestone dissolves if hung in a cloth sack just into the water or powdered bluestone may be used which dissolves readily. A non-metal container must be used, as bluestone "eats" metals.

Next, into the tank (preferably brass) of a 3-gallon compressed air sprayer, pour 9 quarts of water. Add one quart of bluestone stock, and 4 ounces of screened hydrated lime. Close the sprayer and shake endwise 15 times, to make 2½ gallons of 4-4-50 bordeaux mixture. If Colorado beetles need to be controlled together with beetles and blight, on potatoes, add 2 rounded tablespoons of lead arsenate to each gallon of bordeaux. For the vine crops, a blight-cucumber beetle combination is made by adding the same amount as above, but using magnesium arsenate, and the same for blight and Mexican bean beetle, but taking particular pains to cover the under sides of the leaves.

This way of making bordeaux mixture calls only for equipment easy to get: a sprayer (needed anyhow); a cream crock for dissolving the bluestone (and which is not harmed by so using); a corked jug in which to keep the unused portion of the "stock" until more bordeaux needs to be made; a fruit jar or milk bottle to measure it and the water, and a measure for the lime made by cutting down a baking powder can.

## JUNE

### *Plant—*

Sweet corn: Golden Cross Bantam, Stowell's Evergreen (1st and 15th).

Beans (1st to 15th): Stringless Greenpod or Refugee, double-size plantings for canning surplus.

Beets: Detroit Dark Red, for winter storing.

Summer lettuce: Cos Trianon.

Cucumbers: Long Green, late picklers and slicers.

Cantaloupes (See May).

*Insects.* In this month, the fight against insects becomes intensified because new generations have had time to come. Refer to April.

*Blight.* The hot, showery weather of this month gives excellent opportunity for the spread of blight on tomatoes, eggplant, potatoes, beans and the melon crops. See bordeaux mixture, under May.

*Cultivation.* The uncertain moisture supply during this month makes it advisable to cultivate carefully. "Working" the soil should be stopped and "cultivation" substituted. See May.

*Sanitation.* During this month, some of the early crops become mature and spent vines and plants should be removed to prevent the spread of any diseases that may be present and to get rid of insect havens. An excellent way is to chop or spade the soil to make seedbeds for planting other crops.

### JULY

#### *Plant—*

Sweet corn: Golden Cross Bantam, Stowell's Evergreen (1st and 15th).

Beans (15th and 30th): Stringless Greenpod or Refugee; double size plantings for canning surpluses.

Summer lettuce: Cos Trianon.

Beets for storing.

*Set—*Late cabbage and late tomatoes; see June.

*Pests.* Trouble with insects and diseases will not abate during this month; in fact, July's hot weather and scarcity of rain contributing, the ravages of insects are intensified. See April, and May for bordeaux mixture. Bordeaux mixture, by the way, has a tonic effect on plants and appears to offset lack of moisture.

*Cultivation.* With moisture uncertain, the need for cultivating to conserve it becomes all the more important. See May, and refrain from deep "working," hilling and ridging.

*Sanitation.* Removing spent vegetable tops and vines should continue, and the spots and rows so vacated should be planted to late vegetables as long as there is enough time for them to mature before frost, October 15 being the average date of killing. Toward the end of the month, greens also may be sown. Siberian kale, Southern Curled mustard or Bloomsdale Savoy spinach. At the worst, these plantings serve as winter cover crops.

### AUGUST

*Set—*Rhubarb, if neglected this spring. See March.

#### *Plant—*

Beans: Stringless Greenpod (not much after August 1).

Kale: Siberian.

Turnip greens: Seven Top.

Table turnips: Purple Top White Globe.

Chinese cabbage (Celery Cabbage): Pe Tsai.



Lettuce: Grand Rapids or New York (Wonderful).

Radishes: An early variety, or White or Rose Chinese.

Beets (perhaps): Crosby's Egyptian.

Kale, table turnips and Seven Top should be sown in several lots, 15 days apart, so as to have some escape the plant lice and the fleabeetles, for cover crops. The seed may be sown mixed, broadcast, but because insects almost always give trouble, it is better to sow in drills, thinly (3 seed per inch). For plant lice the control is tobacco or rotenone; for fleabeetles, bordeaux mixture; or rotenone (dust or spray) will stop both. (See April and May.)

Chinese cabbage should be sown "in place" soon after August 1: 1 ounce of seed should sow 100 feet. Thin to 12 inches. Watch for plant lice at any stage.

*Lettuce*, both heading and leaf sorts may be had far into the winter by sowing seed in a shaded place, August 1. In 4 to 6 weeks, transfer into a cold frame and shade at least during the heat of the day. When frosty nights come, place the sash, but give ample ventilation during the day, later in the season keeping the sash placed most of the time. New York lettuce may thus be kept in fine, usable condition until really severe weather comes, sometimes until Christmas.

*Winter Cover Crops* should be sown this month. Likely, the garden was arranged to have the early crops together in one place. Where they stood, the weeds should be chopped in or plowed under to make a seed bed for rye, rye grass, crimson clover (in latitudes south of Lexington), barley or wheat, or several of these in combination. If the garden is highly fertile no additional fertilizing is needed, but a light dressing of manure will help. This cover, to be turned under next spring, takes the place of the fibrous part of manure, keeps the soil from washing during the winter and saves plant food. In that respect it is better than stable manure.

A substitute "winter cover crop" is greens: kale, turnip greens, table turnips, mustard or rape. Partly winter hardy, these may keep growing to serve as real cover crops, but if they winter-kill, their roots and the dried tops furnish some humus, or manure substitute.

Another cover crop, sown now, is spring oats. With enough rain there should be 15 inches of growth when winter comes, and tho the tops are killed there is an appreciable amount of matter for turning under which meantime holds the soil against washing and preserves some plant food that would otherwise get away.

Rates for sowing a 100-foot square ( $\frac{1}{4}$ -acre) are: kale, turnips, etc., 1 pound; crimson clover, 5 pounds; all grains except oats,  $1\frac{1}{2}$  pecks; oats, 2 to 3 pecks.

*Winter Vegetable Storage.* This is the time to arrange for storing the surplus vegetables for winter. If there is already a house cellar or an outside cellar, perhaps minor repairs or readjustments should be made now. If no structure is available, now is the time to consider building one. Kentucky Extension Circular 266 describes several forms; some that require only labor to build, but also more pretentious forms, which, properly constructed, should give generations of service. This circular may be obtained thru the county agent or the home agent or, direct, from the College of Agriculture, at Lexington. There is no charge for the circular. If the plans in the circular are not clearly understood or if it is desired to use substitute materials or methods for those described in the circular, the Department of Agricultural Engineering of the College of Agriculture will be glad to give advice.

### SEPTEMBER

*Sow—*

Turnip greens: Seven Top.

Table turnips: Purple Top, White Globe.

Winter radishes: White or Rose Chinese.

A winter cover crop.

*Set—*Lettuce. (See August).

*Cover Crops.* The advantages of putting the garden under a growing cover cannot be overstressed, and every effort should be made so to cover at least part of the garden.

Up to the 15th of this month, wheat, barley or rye may be sown, mixed with hairy vetch. Altho it is uncertain how much green matter will be produced to turn under, at least some soil fertility is conserved and the soil is held against winter washing. If it can be arranged to cover the part of the garden where breaking can be put off until April, a September-sown cover crop will yield a quite satisfactory amount of green matter for humus.

A usable emergency cover crop is late greens. Altho not much cover is produced, for greens are not very hardy, the roots do tend to bind the top soil, and they yield some humus material. Added to this is the simplicity of seed-bed preparation, the low cost of seed and the ease with which the seed is sown. Greens are not to be overlooked as a cover crop possibility, all others failing.



### OCTOBER

Killing frost comes to the latitude of Lexington about October 15. Then gardens must come to an end except for late cabbage, late greens and turnips. However, opportunity still remains to sow a winter cover, but rye is the only possibility and, for assurance's sake, rate of sowing should be double the normal. October-sown rye may not make much growth for turning under, unless it can be left until the end of April or until early May. For that reason, it should be used on land for tomatoes, egg-plant, peppers, second plantings of beans and roasting ears. This should not be difficult to arrange, however, by gardeners who work according to plan. A cover crop is advantageous, even in gardens which receive adequate amounts of stable manure.

If no cover crop is to be sown and if the garden is level enough so there will be no serious winter washing, breaking should be done after frost has seared the vegetable tops. Thus, they are turned under in partly green condition and becoming soaked by the winter's rains and snows, readily give back their humus. The same is true of the fall stands of crabgrass, wiregrass and foxtail with which even the best gardeners find at least parts of the garden now covered.

If this killed vegetation is permitted to lie thru the winter, its fiber becomes dry and tough, to give trouble when the seed-bed is being prepared, and it carries with it the hazard of making the soil "drouthy." For that reason, it is cleared off or burned off and valuable matter is destroyed. A pity, too, for an almost universal lack of gardens thruout Kentucky is humus, "soil conditioner."

On a garden broken in the fall, manure may be spread any time during the winter. The rains and snows and freezings and thawing start its breaking down and it becomes immediately usable.

Hillside gardens and gardens of even moderate slope should be left undisturbed, for the chances are that there will be less washing off a surface beaten down by the past season's rains than off a plowed one. But it would have been better to have sown a winter cover crop to prevent washing. Leaving such a garden "as is" is choosing the lesser evil. Kentuckians who have their own interests at heart, and those of their gardens, will have them covered for the winter, in all cases. October is the very last call for winter cover crops.



U

tion  
Ag  
gre