

Farm Work for July.

By T. B. PARKER.

ETERNAL vigilance is the price of good crops. Good crops are the result of a combination of good cultivation, plant food and moisture.



MR. PARKER.

Good cultivation consists of frequent and shallow workings — frequent so as to prevent grass and weeds, admit air into the soil and conserve moisture. Experiments have shown that when cultivation is less than two inches deep the moisture is not conserved to the fullest, and when over three inches deep the roots of the plant are cut or injured and lessen the crop yield. This is evident because all plant food must be taken up through the roots of the plant and must enter the roots through the minute root-hairs that are to be found near the roots. When a root is cut no plant food can be taken up by that root until the injury is repaired. That is the reason deeply cultivated crops, so often give immediate evidence by the drooping leaves, of the injury done to the plant by this deep cultivation.

All plant food must be taken up in soluble form, hence the necessity of moisture in the soil. We often fail to realize the great quantity of moisture taken up by the plant. Frequently when we cut a weed or any plant off at the top of the ground, in a short time we will see a ring of moist dirt around the plant. This is the moisture taken up by the roots and is on its way to the leaves of the plant, but as the plant is cut off it simply overflows and gives us the wet spot mentioned. It has been shown that on an average it requires about 500 pounds of water to produce one pound of dry matter in an oat crop, while it requires an average of but about 400 pounds of water to produce one pound of dry matter in a wheat crop, and 300 pounds in a corn crop, more or less according to the fertility of the soil. On real poor soils it may require two or even three times as much moisture to produce a pound of dry matter in a plant as it does on a rich or fertile soil. That is one reason crops on poor or infertile soils suffer quicker and more from dry weather than do crops on rich and fertile soils.

It has also been shown that crops in the maturing or fruiting stage take up more water than at other stages. Hence the necessity of conserving all the moisture possible at this particular time.

Early planted corn and cotton begin to ear and fruit in July, therefore July should be a busy month with the farmer. The cultivators should be kept going when soil conditions will permit. Of course, after a rain on a clay soil the cultivators should not be started as quickly as they could be in a sandy or loam soil. Experienced farmers know this and it is necessary to mention this fact only for the benefit of the inexperienced.

Do not plan to give the corn or the cotton two, three or four cultivations and then "lay it by" regardless of conditions or consequences. The rule should be to work the crop as often as is necessary, say every week or ten days, and as long as it is justifiable. On some lands cultivation can be and should be stopped earlier than on other types of soil, but as a rule most farmers stop cultivation too early. However, if from weather conditions or from other causes, a crop has to be neglected for quite a while late in the season, it will be better to let it go and not

work it again. The roots of the plants will have come up and filled the soil near the surface and the injury to these roots from cultivation would overbalance any good that could come from it. Of course, this is a general rule and, therefore, there may be exceptions to it.

Cultivation except when land is poorly drained should be as level as practicable. There are many reasons for this other than that of conserving moisture, such as crossing the field with wagons, sowing the land in winter cover crops or in small grains, etc.

If side applications of fertilizers are to be used, and they should be used, especially on cotton, unless a sufficiency was applied at the time of planting, they should be applied at once. As to just what this application should consist of will depend on the soil to which it is to be applied. If the soil is deficient in all of the three elements of plant food, phosphorus, nitrogen and potash, it will be well to apply a fertilizer carrying all these elements. Such a mixture can be made of 16 per cent. acid phosphate, nitrate of soda, tankage, cottonseed meal and muriate of potash or kainit. For sandy soils it should analyze about 3 or 4 per cent. phosphoric acid, 10 per cent ammonia and 3 or 4 per cent potash. A great many fertilizer manufacturers offer a "top dresser" analyzing 3-10-4 which will take the place of the mixture suggested above. If only nitrogen is needed, either nitrate of soda 75 to 100 pounds per acre or 50 pounds each of cottonseed meal and nitrate of soda per acre can be applied. This application should go on early during the first week of general blooming. If to be applied to corn, apply before or just as it begins to bunch for tassel.

Peas and soy beans should be put in as rapidly as possible, both in growing crops and on land that grew wheat, oats or rye. Sow at the rate of one to one and a half bushels per acre when sown broadcast. Break land well, harrow fine and sow immediately after a season if possible. Soy beans especially often fail to germinate well when sown in a hot dry soil, especially if it is several days before a rain comes sufficient to wet the soil. Some say the germination of soy beans is easily affected by fertilizer and for that reason they should not be put in together.

Soy beans make an exceptionally fine hay when cut at the proper time, also are fine for hogs when turned on them just as the bean is well formed. They are fine soil improvers and are not subject to many of the diseases the cow pea is heir to and this season are selling for less money per bushel than cowpeas bring. I do not say this in disparagement of the cowpea, for it makes a valuable crop, but to bring out some of the strong points of the soy bean. Sow whichever you have or can get and sow as large an acreage as possible even if you will not need the hay nor need to hog them down. They will pay the biggest kind of an interest as soil improvers if allowed to remain on the land and are turned under before putting in an oat or some winter cover crop.

In the higher latitudes of The Progressive Farmer territory, such as the mountain sections of Virginia, North Carolina and South Carolina, crimson clover and vetch can be planted in July, but in other sections they should not go in until August or September. They are valuable crops for hay and for soil improvement. If our Southern farmers would put all their cultivated lands in winter cover crops, there could be an immense

saving in the nitrogen annually purchased in commercial fertilizers.

The sweet potato crop should have attention. When sprouts or slips were planted early the vines should by this time be long enough to furnish cuttings for setting in July. These will make potatoes far preferable for keeping over winter than those grown from the slips.

The writer had on his table today, June 15, Nancy Hall potatoes grown from vine cuttings which were as sound as when first dug and had all

the good eating qualities that they had in March.

Land on which small grains grew, if not too heavy, will be fine for planting out to cuttings. Make the ridges about 3 1/2 feet apart and apply 400 to 600 pounds per acre of a fertilizer analyzing about 8-3-10. A good sweet potato fertilizer can be made by adding to 400 pounds of 8-3-3, 30 pounds of muriate of potash, or 25 pounds of muriate of potash to 400 pounds 8-4-4 fertilizer. Potatoes require a fertilizer rich in potash.

THE MARKETS.

RALEIGH MARKETS.

(Report Furnished by Barbee & Co.)
June 27.

Cotton.

Good middling	12%
Strict middling	12%
Middling	11%
Low grades	8 to 10

Flour, Hay and Grain.

(Report Furnished by C. B. Gill & Co.)

Flour—per bbl.—wholesale prices:	
High grades	\$5.50 @ \$6.00
Lower grades	4.75 @ 5.25
Corn—No. 2 white, per bushel	.88 @ .92
No. 2 mixed	.83 @ .88
Timothy hay, per ton	\$20.50 @ \$23.00

Provisions.

Snowdrift shortening, per case	6.00
Compound, tierce basis	8 3/4 c
Pure lard, tierce basis	12 3/4 c
Cheese, full cream	16 1/2 c

Meats.

Hams, sugar-cured	19 @ 22 c
Reg. ribs, 40-45	13 @ 13 1/2 c

SAVANNAH COTTON

(Report Furnished by W. T. Williams, Editor
The Cotton Record.)
June 28.

Ordinary	10%
Good ordinary	10%
Low middling	11%
Middling	12%
Good Middling	12%
Total sales—bales	1,452
Cottonseed, carload lots, per ton	nominal
Cottonseed meal, per ton	\$30.00
Cottonseed hulls, per ton	14.00

No important change has taken place in the market situation during the past week. Quotations declined a small fraction early, and afterwards remained without change. The slight decline was mostly only nominal, as there has been scarcely any cotton for sale. The business reported was chiefly of some scattering lots bought in the interior. Stocks in this country are getting down to an end of the season basis, but it looks as if they will be reduced considerably below normal proportions before the new crop becomes available. It would thus appear that the surplus left over from a crop of 16,000,000 bales has been all required to piece out a succeeding crop of 14,000,000 bales, with no surplus to carry over. This means that the average consumption for the last two years has been at the rate of 15,000,000 bales, and as the rate is still increasing, a crop in excess of 15,000,000 bales has become a necessity. Yet if we make a million or two bales more than is absolutely needed, we must expect to see the price knocked off below the margin of profit. A prosperous harvest is ours if we do not make over the wanted amount, and it is far better to be a little short than a little over.

The crop seems to be doing finely at present. Rains have fallen in some dry sections, and moderately high temperatures have favored the rapid development of the backward plant. Recently there has been more talk of the boll weevil in the middle section, but on the whole there is no doubt that the average prospect has improved appreciably since the date of the last bureau report. The next report will be out on July 2, when the acreage will also be given out. The increase is expected to prove about 4 per cent. The condition may be around 83, or intermediate between last year and the year before.

NORFOLK COTTON.

(Reported by Eure Harris & Co., Norfolk, Virginia.)
June 27.

Good middling	12%
Strict middling	12%
Middling	12%
Strict low middling	12%
Tone steady.	

NORFOLK AND SUFFOLK PEANUTS.

(Report furnished by Holmes & Dawson, Norfolk, Va.)

No. 1 grade, 60 per cent	3% @ 4
No. 2 grade, 50 to 55 per cent	3% @ 3 1/2
No. 3 grade, 40 to 45 per cent	3% @ 3 1/4
Shelling, good weight	3% @ 3 1/2
Shelling, light weight	2% @ 3
Spanish	1.55

RICHMOND TOBACCO.

(Report Furnished by E. K. Victor & Co., Leaf, Strips, Stems and Scraps.)
June 21.

Nothing of interest has happened during the week. Trade is very quiet and waiting for the new crop of brights. Old tobaccos have all been sold with the exception of

some scattering lots which are held here by various dealers. The weather is hot and dry with occasional local showers and it is reported that the tobacco crop is doing very well in the field.

RICHMOND LIVESTOCK.

(Report Furnished by W. G. Lambert, Mgr. Union Stock Yards, Richmond, Va.)
June 23.

Steers—Best, per cwt	\$7.75 @ \$8.25
Medium to good	7.00 @ 7.50
Common to fair	6.00 @ 6.50
Helpers—Best, per cwt	7.00 @ 7.50
Medium to good	5.50 @ 6.50
Common to fair	4.25 @ 5.25
Cows—Best, per cwt	6.00 @ 6.50
Medium to good	4.75 @ 5.25
Common to fair	3.50 @ 4.50
Oxen, per cwt	4.25 @ 7.25
Bulls, per cwt	4.50 @ 6.00
Calves—Extra, per cwt	8.00 @ 8.50
Medium	7.00 @ 8.00
Dairy cows, per head	25.00 @ 65.00
Hogs—Best, per cwt	8.25 @ 8.50
Sows and stags, per cwt	5.00 @ 7.00
Good	7.75 @ 8.00
Sheep—Best, per cwt	4.00 @ 4.50
Common to fair	2.50 @ 3.00
Lambs	6.00 @ 8.00

HICKORY EGGS AND BUTTER

(Reported by Catawba Creamery Company, Hickory, N. C.)

Eggs—Fresh-gathered, per dozen	18c
Store-gathered	16c
Butter—Creamery, per pound	30c
County	16 to 20c
Hens, per pound	10c
Young chickens, per pound	18c

NEW YORK PRODUCE.

(Reported by F. J. Root.)
June 24.

New white No. 1 Southern potatoes, per barrel, \$1.25 @ 1.87; No. 2, \$1.25 @ 1.50. Texas white onions, per crate, \$1 @ 2; Norfolk yellow, per basket, 65 @ 75c. Cabbage, Norfolk, \$1.25 @ 2.25 per crate; per barrel, \$1 @ 2; red, \$1.50 @ 2.50. Asparagus, green prime, per dozen bunches, \$1 @ 1.25; white fancy, \$1.50 @ 1.75. Beans, green or wax, per basket, \$1 @ 1.25. Beets, \$1 @ 2 per 100 bunches. Carrots, \$1 @ 2 per 100 bunches; old, per barrel, \$1.50 @ 2. Cucumbers, 50 @ \$1 per basket. Corn, 75c @ \$1.25 per crate. Eggplants, 75c @ \$1.50 per box. Horseradish, \$2 @ 3 per 100 pounds. Lettuce, \$1 @ 1.50 per barrel. Leeks, 50c @ \$1 per barrel. Lima beans, \$1 @ 2 per basket. Okra, \$1 @ 2.50 per carrier. Peppers, \$1 @ 1.75 per carrier. Peas, 75c @ \$1 per basket, for large. Parsnips, 50 @ 75c per barrel. Radishes, 50c @ \$1 per 100 bunches. Spinach, 50c @ \$1 per barrel. Squash, new, yellow, 50c @ \$1 per basket. Turnips (rutabagas) 75c @ \$1.25 per barrel. Tomatoes, \$1 @ 2 per carrier. Apples, \$2.50 @ 5.50 per barrel. Peaches, \$1.50 @ 3.50 per carrier. Cherries, sour, per peach basket, \$1.25 @ 2; sweet, \$1.25 @ 2. Currants, 10 @ 12c per quart. Strawberries, 6 @ 18c per quart. Blackberries, 5 @ 15c per quart. Raspberries, per pint, 6 @ 8c. Huckleberries, 15 @ 20c per quart. Gooseberries, 10 @ 15c per quart. Muskmelons, per crate, \$2.25 @ 2.75. Watermelons, \$25 @ 50 per 100. Wheat No. 2 red, cash, \$1.10. Corn, 6 1/2 @ 7c. Oats, 4 1/2 @ 4 7/8 c. Mess pork, per barrel, \$22.25 @ 22.75. Mess beef, \$19 @ 20. Top grades of creamery butter, 27 1/2 @ 28c; factory, 22 1/2 @ 24c; imitation creamery, 24 1/2 @ 25c. Country eggs, 17 1/2 @ 20c.

Our old education was founded upon the adage that every male born in the United States could be President some day, and we shaped our education to fit him therefor. We are beginning to realize that this is an impossibility and that in educating every boy to be President we spoiled many embryo Edisons or Newtons or Lawes. We shaped our education for the benefit of the few instead of so planning it as to do the greatest good to the greatest number. In the order of things, the greater number of boys who enter our schools are destined to be tillers of the soil and the correct education should be such as best fits them for the battle of life in this occupation.—D. N. Barrow.

Mr. Poe will speak at a farmers' picnic at Hickory, near Norfolk, Virginia, July 9.

Men co-operate after different fashions; and even those co-operate abundantly, who find fault with what happens and those who try to oppose it and to hinder it; for the universe had need even of such men as these.—Marcus Aurelius.