

WEEDS AND THEIR SEEDS.

In a recent experiment station Bulletin, Dr. E. L. Sturtevant gives the following facts, as reported in the Albany Cultivator:

Weeds, however, show a most remarkable fecundity. It becomes impossible to select an average plant, as the growth varies so much in localities. We have, however, selected plants representing vigorous plants, and the average plant of our fields. The number of species of weeds upon the station farm is quite large, and the number which can start on a limited area is very surprising. June 22, a single square foot of ground in our pear orchard, that had been ploughed and harrowed this season, was found to contain 856 growing plants, comprising 7 distinct species, not counting grasses or clovers. At the same date our forage plot contained 24 species of weeds, our lawn 18 species, our fields 80 species, and our garden 28 species.

On September 28, one vigorous pursley plant (*Portulaca oleracea*) contained 9 branches, the average branch 15 branchlets, the average branchlet 212 seed capsules, one average seed capsule 75 seeds, thus making for an estimate a grand total of 2,146,500 seeds.

June 21, an average plant of shepherd's purse (*Capella bursa pastoris*) contained about 1,000 pods, each pod at least 20 seeds, and more blooms to come. A better specimen showed 2,200 pods and still blooming; a vigorous specimen had 4,400 pods at least and still blooming. The number of seeds to a plant may, therefore, be estimated at from 20,000 to 80,000. A fair sample of mallow (*Malva rotundifolia*) had 1,100 blossoms, and more to come, each bloom producing 15 seeds; the estimate for the plant, therefore, is 16,500.

A fair sample of chickweed (*Stellaria media*) showed 128 flowers and capsules, each of which produced from 7 to 10 seeds. A better plant showed 471 capsules, and many had opened and fallen. This plant flowers during a very long season, and the number of seeds upon the plant at one time may be safely estimated at from 1,000 to 4,000.

A plant of corn speedwell (*Veronica arvensis*) showed 49 pods with 90 seeds to a pod. A more vigorous plant showed 175 pods and about 101 seeds to a pod; another plant had 78 pods, and still another 129. The number of seeds can, therefore, be estimated at from 4,000 to 15,000 to the plant. A specimen of the thyme-leaved speedwell (*Veronica serpyllifolia*) had 112 pods with about 58 seeds to the pod, or an estimated number of 8,000 seeds to the plant.

A fair, rather smallish plant of black mustard (*Sinapis nigra*) had about 120 blossoms and pods. One pod had 15 seeds; the estimate, therefore, is 1,800 seeds to the plant.

It does not require a very vigorous dandelion (*Taraxacum dens-leonis*) to throw up 10 or 20 blossoms, in a season yet each head may contain 120 seeds or more, or from 1,000 to 2,000 to the plant.

A fair sample of curled dock (*Rumex crispus*) had 9 stems; one stem, selected as an average one, had 21 flower spikes, one average spike counted 869 blooms. A single stem had, therefore, about 7,750 blooms, and the 9 stems about 69,000 blooms. A larger plant in the garden had 10 stems, the largest stem had 41 seed spikes, the smallest 20 seed spikes, the largest had 680 whorls, the smallest 219 whorls. The computed number of seeds is therefore at least 98,890.

On June the 25th, an average flower of the ox-eye daisy (*Leucanthemum vulgare*) contained 802, and another flower 849 skenes to the flower. One plant had 72, and another plant had 120 blooms.

While often there is but one stem to a seed, yet frequently there are more, up even to 28. One stem may have 18 blooms. The number of seeds to a plant may, therefore, be computed at from 8,000 to 98,000 seeds.

On July 6, a fair stool of chess or cheat (*Bromus secalinus*) had 211 heads, and an average head had 18 seeds; the estimated number of seeds is 8,798.

A fair sample of corn chamomile (*Anthemis arvensis*) had 151 seeds to the flower, and 48 flowers to a stalk. This plant has from one to ten stalks. The seeds can, therefore, be computed at from 7,000 to 70,000 to a plant.

On July 12, a vigorous plantin (*Plantago major*) had 8 flower spikes, and one of these, not the largest, had 561 blooms.

On August 29, an average sized plant of pig weed (*Chenopodium album*) had 28 branches. One branch bore 21 branchlets. One average branchlet bore 18 flower spikes. One average spike contained 108 seeds. The computation for the plant is, therefore, 825,552.

ABUNDANT GIVING.

The sun gives over, so the earth;
What it can give, so much 'tis worth.
The ocean gives in many ways;
Gives paths, great rivers, fishes, bays;
So, too, the air, it gives us breath,
When it stops giving comes in death.
Give, give; be always giving;
Who gives not is not living;
The more we give the more we live.

God's love, though in our wealth unheaped,
Only by giving it is reaped;
The body withers, and the mind,
If pent in by a selfish rind,
Give thought, give strength, give deeds, give pelf,
Give love, give tears, and give thyself.
Give, give; be always giving;
Who gives not is not living;
The more we give the more we live.

SMALL FARMS AND BIG CROPS.

Twenty years ago the State of Mississippi, always famous for its cotton yield, contained about forty thousand plantations, averaging three hundred and seven acres each; now she has nearly twice as many, but the average size is only half that of 1860. The number of acres under cultivation is less than in 1860, for scarcely any rough land has been cleared, and some plantations have been injured by broken levees, and yet the cotton crop is twice as large as it was in the good, old times. No better proof could be wanted to establish the desirability of decreasing the size of farms and increasing the number of owners; but the lesson should be learned elsewhere as in the south. Whole counties in the United States are wretchedly poor, because every farmer is trying to handle a "quarter section"—one hundred and sixty acres—with only enough capital and working force to properly till a quarter as much soil.

A FARM of 160 acres should keep fifty head of cattle or their equivalent in other stock. What is raised on the farm should be consumed on the farm, for the farmer thereby saves fertility to the soil and one profit to the pocket-book.—*Indiana Farmer.*

THE farmer's trade is one of worth,
He's partner with the sky and earth,
He's partner with the sun and rain,
And no man loses for his gain,
And men may rise and men may fall,
But the farmer he must feed them all.

It is true beyond any doubt that under-drainage mitigates the effects of a dry season. A drained soil is always loose and porous, and no matter how little the rainfall, it seldom bakes hard. The reason is that the air circulates freely through it, as temperature and atmospheric pressure vary, and thus it readily absorbs the dews and moisture which are never entirely absent from the earth's surface in the night season.

HOUSEHOLD HINTS.

Be loving, and you will not want for love; be humble, and you will never want for guiding.—*D. M. Mulock.*

THE *Lancet* thinks that if children would wear woollen next the skin, and wear longer clothing, suspending it from the shoulders, we would hear more of boisterous health and less of backaches and pains.

A BOILING solution of sulphate of copper applied to a floor before laying a carpet will keep away moths. For outside coverings of furniture, especially of wool, a solution of corrosive sublimate dissolved in colourless alcohol can be used without fear of discolouration, and is a certain exterminator of these pests.

WARM flannels, perfect protection for feet and legs, abundant clothing, a saddle horse six or eight hours a day, in the open air in all weathers, wheat, oats and beef in generous quantities, much friction of the skin and plenty of sleep, cure a person threatened with consumption. When a doctor has given his advice to such a patient he has done all he can for him. Dio Lewis says so.

THERMOMETERS are inexpensive, and every occupied room should have one. Fuel is often wasted by allowing the air to become too hot, and inmates catch cold by allowing the temperature to fall too low unawares. A thermometer is valuable in a fruit room, and by keeping the temperature uniformly near freezing, decay by too much heat and freezing and spoiling by too low a temperature will be prevented.

BUCKSKIN lining in shoes is nice for ladies and girls who suffer with cold feet. Thin soles of cork ought also to be placed between the leather soles, to keep dampness out. If not too lazy go out on the porch and hop around for fifteen minutes; this for those who suffer from chronic cold feet. If you have headache it comes most likely from cold feet, defective vision that needs rectifying glasses, or disordered stomach from eating too much rich food. (Which is it in your case?)

WHEN a pump-tube freezes solid, do not pour in hot water in the common way with the hope of thawing. The hot water will stay at the top, and that will be the end of it. But procure a lead tube, or any other kind of pipe, place the lower end directly on the ice in the pump, and with a funnel pour hot water in at the top. The weight of the water in the pipe will drive it hot against the ice, the pipe settling as fast as the ice melts, and the whole will be cleaned out in an incredibly short time.

Every person should have it distinctly and durably impressed on the mind, that as soon as a house is found to be on fire, every door should be kept carefully closed. Air-currents are thus prevented and the flames shut out for a time from one room to another, and time is allowed to extinguish the fire or to secure the furniture. Some time ago a two-storey house of wood was found to be on fire after midnight, when the inmates ran frantically from one room to another, leaving all the doors open, and in ten minutes the whole building was in flames and nothing was saved.

SOMETHING new in cake is devoutly desired by most housekeepers. Here it is: Bake in a large tin one cake, which, when risen and baked, shall be not more than two inches deep. Take from the tin carefully, and frost thickly over the top with boiled frosting in which, directly after taking it from the stove, you have stirred English walnut meats. Chop the meats, not so fine, however, that they may not be readily distinguished. Cut in pieces about two inches wide and four long. For the cake itself use any good white cake receipt. Flavour with lemon vanilla. This is said to be delicious.