



Eliza E. Mills
Fenner, N. Y.

Agonizing Headaches Indigestion—Distress in the Stomach.

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Desired Results.**

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"Dear Sirs: I gladly testify to the efficacy and curative powers of Hood's Sarsaparilla and cheerfully state that it has done wonders for me. For years I have been a great sufferer from agonizing headaches and

Distress in the Stomach
after eating and at other times, accompanied by sour stomach. I was very bad with indigestion also. I noticed in different papers men-

Hood's Sarsaparilla Cures

tion of the cures Hood's Sarsaparilla had wrought and thought I would try it. It has accomplished the desired results. The pain and distress in the stomach and the severe headache spells have been overcome as well as my indigestion. I can now enjoy a meal without any distress and can recommend Hood's Sarsaparilla as one of the best of medicines." ELIZA E. MILLS, Fenner, N. Y.

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FARMER AND PLANTER.

FERTILIZATION.

"General Principles" of Fertilization, or How to Increase the "Average."

The great reproach to agriculture is the beggarly average yield per acre, as reported in the census returns, compared with that harvested by our best farmers. Thousands of farmers harvest from six to ten bushels of wheat, twelve to sixteen of corn, twenty-five to thirty of oats, one hundred and eighty to two hundred pounds of lint cotton per acre, while others, their neighbors, make twenty to thirty bushels of wheat, fifty to seventy-five of corn, eighty to one hundred bushels of oats, and five to seven hundred pounds of cotton per acre. It is strange that so many—in fact, a majority of farmers—will content themselves with results that are a reproach to agriculture and the country. These are not the results of laziness or dissipation, except in rare cases, but of bad management, attempting to do more than can be done well and conscientiously. Preparation of the soil, and poor cultivation; lack of care in the selection of varieties and seed, and often of ignorance of the best methods of cultivation. Last June the writer saw turning plows choking every two or three rods with corn roots, and cotton laid by with the same implement in July. The most rational way to account for the disparity of yields is the great number of farmers who do not read agricultural papers, attend farmers' institutes, nor make any efforts to keep up with the improvements of the day.—Texas Farm and Ranch, December 14, 1903.

We have no fears of giving too much of a good thing when we quote the above article entire; in its entirety it is unfortunately too true. The "average" yields per acre are so small as to be out of all proportion with the natural fertility of the soil; and as above stated the beggarly average yields are a reproach to agriculture. But how about that large army who fall below the average—the minimum farmer? The writer of above enumerates some of the causes which operate to bring about these minimum crops, viz: First, in rare cases, laziness or dissipation. Second, bad management. Third, attempting to do more than can be done well (this is, in our opinion, and throughout the entire south, if not the whole of Uncle Sam's vast domain, the main and leading cause), and consequently, fourth, faulty preparation of the soil, and fifth, poor cultivation; sixth, lack of care in the selection of varieties, and seventh, seed; eighth, "and often of ignorance of the best methods of cultivation." That each and all of the above are true causes, we are satisfied. The remedy in each case is so obvious, and so often dwelt upon by farm writers of any and every grade, that we forbear further comment thereon at this time and proceed with our subject, viz, the general principles of rational fertilization. Our friends of the inexhaustible Brazos river bottom, and the famous fertile black land, will doubtless think it is like our impudence to even talk fertilizers to a Texan. We fancy we hear Uncle Sam say: "That fool of a Mississippi ought to be kicked to death by a jackass, and I'd like to be the one to do it." But though the major portion of Texas is so exceedingly rich as to be almost inexhaustible, oftentimes being as black and rich thirty feet below as at the surface, not even a Texan nor a Connecticut Yankee can invent a plow that will bring this rich, black, unctious soil from those great depths to the surface. Neither can they, by any known method of cultivation, induce the laterals or feeding roots to go down in search of this vast bed of hidden fertility. This fact tends to equalize things, to even them up, and throws us all on a common level by confining us to the top layer, or upper twelve to eighteen inches of soil. Although it is impossible to exhaust a soil thirty feet deep of all its fertility, it is not impossible to so impoverish, by continued cropping and a want of judicious rotation, coupled with the soil-robbing process of taking everything off the soil and putting nothing back, that obtain in all naturally rich and fertile sections of country, the upper layer—twelve inches—of soil as that the cultivation thereof ceases to be remunerative. This fact has been abundantly substantiated on the older-settled portions of what used to be the great west, viz, Indiana and Illinois. The time to save a thing is when we have it; it is everlasting too late to undertake to save it after it is gone. "A word to the wise is sufficient," etc., etc. Texas is truly a grand and great country, an empire within itself. It is full of magnificent possibilities as well as what is of infinitely greater importance—actualities, and possesses quite a variety of both climates and soils. It is this multiplicity of soils that emboldens us in writing this article; really it is the latter fact that creates the necessity for it. At farmers' institutes and in the agricultural press, no subject has been deemed of greater importance, none having been discussed more than that of rational fertilization; yet in spite of so much discussion, no subject connected with vital, practical agriculture seems to be less understood. Were all soils alike in chemical composition, mechanical division, or texture and productive capacity, even though they were all poor, judicious fertilization would cease to be the complex problem it now is. This complexity of the fertilizing problem ceases to exist when the soil tiller makes a practical, not chemical, analysis of the various soils on his farm, and makes himself familiar with the great general principles of rational fertilization. We use the term "rational" here in contra-distinction from and opposed to empirical fertilization, i. e., applying the same kind of manure and fertilizer to all kinds and varieties of soil, indiscriminately. To know what is and what is not required to bring each individual variety of soil up to its maximum productive capacity and thereby increase the general average in the sine-quas-non of profitable agriculture, is as easy as rolling down hill when the cultivator studies, first, the general principles underlying the fertilizing process; second, the necessities of each individual class of plants; and third, practically analyzes his soils. Of the practical analysis of soils, we shall speak elsewhere, in an article devoted exclusively to that sub-

ject. In order to make this matter so plain to the average reader that none need fail to understand, we would state that in the building up of a perfect plant: "First, the blade; next, the ear; then, the full corn in the ear, each of the three leading elements, i. e., nitrogen, phosphoric acid and potash, have a certain part to perform. To nitrogen is due the rich, dark green color of the foliage, as also the size and even number of the leaves, and, to a great extent, of the stalks and stems, as well as an increase in the number and size of seeds, and in the proportion of gluten they contain. The phosphates induce early fruiting, as well as increased fruiting, and likewise increase the quantity of sugar, starch and oil, while the alkalies, as potash, lime, soda, etc., increase the proportions of wood, stalk and fiber of the plant, and also, to some extent, of the fruit or seed. Nitrogen tends to make the growth of plants more luxuriant and to make them live longer, while the phosphates, on the contrary, tend to excessive fruiting, and, by forcing them to an early maturity, diminish their growth and make them die faster. By closely observing the growth of crops in each separate plot on the farm, and bearing in mind the above facts, it becomes quite an easy matter to decide practically what is deficient in one plot and what is in excess, if excess there be, in another. Contrary to the general opinion, the comparative inexhaustible alluvials of our larger river valleys, and the just as fertile soils of our larger prairies, oftentimes need the application of artificial fertilizer, not in order to make them richer, but as a corrective, to restore a lost equilibrium, or balance or proportion of the five leading elements of fertility, viz., nitrogen, phosphoric acid, potash, lime, and last, but not least, humus, in order to adapt the soil, as nearly as practicable and possible, to each individual crop planted thereon, and to supply and abundantly satisfy their several requirements. To illustrate: When there is deficient stalk growths and foliage is of a pale, sickly, yellow color, nitrogen and alkalies are indicated, but where the growth of stalk or stem is especially luxuriant and the foliage dark green and glossy, it is oftentimes a deficiency of the fruitage, let it be potatoes with all tops and no tubers, wheat with superabundance of straw, but diminutive heads, fruit trees with luxuriant wood growth, but little fruit, a mammoth corn stalk, minus the ear, or an exuberant weed growth of cotton, but few bolls, and those few too late to open, etc., etc., all go to show an abundant supply of nitrogen, but a deficiency of potash and the phosphates. Omitting to supply these lacking elements in one great and grand cause of the general low averages throughout the country, while the employment of ammoniacal or even general fertilizers to such land, could not fail to be a waste of money, a detriment to the crop, and to bring disappointment to the farmer.—C. H. Turner, in Farm and Ranch.

Ground Corn and Cob as Feed.
For many years there has been an apparent conflict between science and practice with feeding ground corn cobs with corn meal. Science could find no nutriment in cobs to pay for the grinding, while those who fed it were certain the cows not only liked it, but thrived on it. The North Carolina station has been making some close investigations along this line, and the authorities have come to the conclusion that the corn crop ground as corn-and-cob meal should go thirteen per cent, further than if the corn-meal is fed and the cobs wasted, and this along the lines of nutriment. Heretofore the most science would admit was that the cob meal acted in a mechanical way of separating the corn meal in the stomach of the cow so that the gastric juice could better get in its work. Be this as it may it certainly pays to grind the cobs along with the corn, and it should be done by everyone who proposes to get the full value of his corn crop.—Southern Farm.

The Tobacco Crop.
The annual report of the United States department of agriculture puts the total acreage of tobacco in the United States for 1903 at 702,952 acres; the total yield in pounds was 483,023,903, valued at \$39,155,442. Of this crop Kentucky is credited with 309,607 acres, yielding 219,926,385 pounds, valued at \$16,486,405. Thus it will be seen that Kentucky produces nearly one-half of the entire tobacco crop of the United States. Virginia ranks next to Kentucky, her crop being placed at 103,003 acres, yielding 68,599,998 pounds, valued at \$4,253,300.

HERE AND THERE.
—The healthfulness of farm life is one of its advantages over other occupations which can not be measured by money value.
—Too frequent feeding makes animals gluttonous. Feed them enough and give them time to digest it before feeding again.
—A change of pastures is not only beneficial to the stock, but will secure a better gain in proportion to the amount of food consumed.
—If the little chicks are confined to small runs where there is no grass, cut a piece of sod and give to them and see how they will go for it.
—A flock of scrub sheep with a well-bred shepherd will bring larger profit than a thoroughbred flock will in the hands of a scrub flockmaster.
—Country provision dealers pay more for country cured meats than for city meats, because their customers will buy them at an advance.
—Grass will grow anywhere that a good crop of weeds will thrive, and if land is liable to be overrun with weeds, a crop of Hungarian grass will crowd out the weeds and destroy them.
—Pools of water in the pasture do not supply the cows with cool, fresh, clean water. If no streams run through the pasture, put up a windmill and have water supplied to troughs with pipes.

FIRESIDE FRAGMENTS

—Creamed Parsnips.—Boil, and cut into dice. Brown in a little hot butter, and pour over them a little thickened cream.—Housekeeper.

—The lover of pretty things—and what woman is not?—takes especial pride in the collection of ice cream bowls, water bottles, olive and bon-bon dishes and flower basins of Madras silver, in Oriental shapes and handsomely decorated.

—Champagne Cake.—One cup of sugar, half a cup of butter, two eggs, half a cup of sweet milk, one teaspoonful cream of tartar, half a teaspoonful of soda. Mix with flour to consistency of cookies; roll out, cut in strips, roll them in powdered sugar and twist into rings. Bake a light brown.—Boston Budget.

—Bockings.—Mix a pint of buckwheat, with a teacup of warm milk, and two tablespoons of yeast; let it rise about two hours; add two eggs, well beaten, and as much milk as will make the batter the usual thickness for pancakes, and fry them.—Housekeeper.

—Smothered Beefsteak.—Divide a round of steak; put half in a shallow pan; season with salt, pepper and sliced onions; sprinkle on a little flour and lay on the other half of steak and season the same way. Cover with another pan; bake an hour.—Western Rural.

—Berry Pudding.—Spread thin slices of stale bread with butter and place a layer in a pudding dish, and over it one of stewed raspberries, blackberries or the like containing plenty of juice; then add successive layers of the bread and butter and berries, until the pudding dish is full. Bake thirty minutes and eat with cream and sugar, or whipped cream.—Orange Judd Farmer.

—Try what a glass of hot milk will do as a restorative, from a day's fatigue in shopping, housework, etc. After a morning's wear and tear in rushing from shop to shop, in search of gowns and garments, discard the notion of chicken salad, chocolate, Charlotte russe or eclairs as a lunch, and tone up your jaded system with a glass of hot milk, a dainty English muffin, or toasted brown bread. To this simple fare might be added, with good effect, a juicy chop or a soft-boiled egg.

—Chicken with Mushrooms.—Have ready one pound of cold chicken chopped fine, and one pint of cold mushrooms cut in small pieces. Cover these with water and boil five minutes. Skim out the mushrooms into a hot dish. There should be left a coffee cupful of liquid. If not enough, add milk to the hot liquid. Thicken this with a tablespoonful of flour, same amount of butter, and season. Three minutes' boiling will thicken it. Add the chicken and mushrooms and cook two minutes, stirring constantly. Serve on hot platter.—Christian Inquirer.

—Macaroni Pudding.—One cupful of broken macaroni, one and one-half pints of milk, four eggs, one cupful of sugar, one tablespoonful of butter and one teaspoonful of vanilla. Boil the macaroni in salted water ten minutes, then add it to the boiling milk and simmer twenty minutes longer; remove from the fire, pour it on the sugar, eggs and butter, beaten together; lastly add the extract. Put into a well buttered pudding dish, and bake in a steady oven thirty-five minutes. Serve with cream sauce.—Good Housekeeping.

THE THEFT WAS WELCOME.
Neat and Effective Way of Disposing of an Undesirable Cat.
Early last summer, as a family living in one of Boston's suburbs was about to go into the country for several months, the question came up as to the disposition of the cat. After due deliberation they concluded that, as he was not very valuable, it would not pay to bother to find a boarding place for him, and that pater familias might give him a dose of chloroform. What followed, let the father tell in his own words.

"I took the cat," says he, "and after putting him carefully in a box, gave him a generous quantity of the anaesthetic. He quietly straightened out, but, fearing that the spark of life was not fully extinguished, I took him to a block and used considerable violence upon him. At first I did not know just what to do with the remains of the animal, but finally concluded to wrap them up in a neat-looking bundle and take them to town and throw them into one of the yellow carts with the street sweepings. I did not care to take the bundle into the car with me, so I left it on the front platform, and thought no more about it until the car arrived at Bromfield street, where I got off. There I happened to remember it, and went to the front platform, when—you may judge of my surprise and relief—I found that someone had stolen my bundle."

The narrator further adds that he should be glad to have the thief know that no questions would be asked if he would describe his sensations upon opening the package.—Boston Herald.

Lamp Wicks of Clay.
A lamp wick has been invented which is made entirely of clay, and claimed to give 35 per cent. more light than the cotton wick. It is made capillary by incorporating with the clay, while in a plastic state, filaments of unspun vegetable fiber, which are burned out in the process of baking. The object is to provide an indestructible wick, which shall possess all the advantageous qualities of an ordinary cotton or fiber wick, and which shall, in addition, last an indefinite time without renewal or necessity of trimming or care. When the clay is baked the vegetable fiber is burned out, leaving capillary tubes running longitudinally through the wick, through which the oil from the lamp will be raised to the flame by capillary attraction. Owing to the perfect combustion of the wick the flame is perfectly white in character, devoid of odor and smokeless. It is found, through a practical test, that oil is volatilized by the use of this wick, and the vapor is consumed, thus giving the above results.—House Furnishing Review.

Why not, indeed?

When the Royal Baking Powder makes finer and more wholesome food at a less cost, which every housekeeper familiar with it will affirm, why not discard altogether the old-fashioned methods of soda and sour milk, or home-made mixture of cream of tartar and soda, or the cheaper and inferior baking powders, and use it exclusively?

ROYAL BAKING POWDER CO., 108 WALL ST., NEW-YORK.

—Letter to a Son at College.—"My dear Son: I write to send you two pairs of my old breeches, that you may have a new coat made of them; also some socks which your mother has just knit by cutting down some of mine. Your mother sends you two pounds without my knowledge, and for fear you may not use it wisely, I have kept back half and only send you one. Your mother and I are well, except that your sister has got the measles, which we think would spread among the other girls if Tom had not had it before, and he is the only one left. I hope you will do honor to my teaching; if not, you are an ass, and your mother and myself your affectionate parents."

—No one has as yet been able to tell why railroad rails "creep." That they do is a fact well established by expert testimony. Recently it has been discovered that on lines running north and south the west rail "creeps" faster than the east rail. Without conclusive evidence on the subject, it is believed that there must be some central magnetic attraction toward the east that causes the movement.

—The Pittsburgh Baseball club is now after a mascot which will out-mascot all other mascots. It is a twelve-year-old boy who fell from the seventh story of the Railroad building, Denver, Col., a few weeks ago. He struck on a number of telegraph wires, bounded into the air, and finally landed on the back of a horse. The animal was killed by the shock, but the boy was only stunned, and soon recovered consciousness. In three minutes he was receiving congratulations on his luck.

—All in a Tremble! Nervous, elderly ladies use this phrase to describe their tremors, and highly graphic it is. Nerves "all in a tremble" are best tranquillized and strengthened with Hostetter's Stomach Bitters. The Bitters is a nervine because it is a tonic for the nerves, and tones up what the nerves require if they are weak and shaky. Digestion and assimilation are insured by it, and it remedies constipation, biliousness and malaria.

Cataract Cannot Be Cured
with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Cataract is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Cataract Cure is taken internally, and acts directly on the blood and mucous surfaces. Hall's Cataract Cure is not a quick medicine. It was prescribed by one of the best physicians in this country for years and is a regular prescription. It is composed of the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Cataract. Send for testimonials, free.

—"I'm so glad I lost my legs!" said the veteran, with a smile. "I never have rheumatism in my wooden ones, and on cold winter nights I haven't anything to stick down under the arctic sheets."—Harper's Bazar.

—LEARNING hath gained most by those books by which the printers have lost.—Thomas Fuller.

—THE sight draft—A cyclone.

—A LEGAL necessity—Attorneys' fees.

—COURAGE is something that a coward can only imitate.—Ran's Horn.

—THE musical composer is singularly sensitive about his notes going to protest.

—THE most wonderful thing about a hearing is how the meat ever got between the bones.

—A CLOUSE never looks well, no matter what amount of baggage it carries along with it.



—AGONY—"Well, I want a husband who is easily pleased." Maud—"Don't worry, dear; that is the kind you'll get."—Tid-Bits.

—NO SYSTEM of MEMORICONS can equal that arising from the persistent habit of telling the exact truth.—Sam's Horn.

—THERE is something so imposing about a silent man that we hardly ever reflect that he very probably has nothing to say.

—IT is a well-known fact that a paradoxical fact in the jewelry trade that cut-diamond rates are higher than the original price.

KNOWLEDGE
Brings comfort and improvement and tends to personal enjoyment when rightly used. The many, who live better than others and enjoy life more, with less expenditure, by more promptly adopting the world's best products to the needs of physical being, will attest the value to health of the pure liquid laxative principles embraced in the remedy, Syrup of Figs. Its excellence is due to its presenting in the form most acceptable and pleasant to the taste, the refreshing and truly beneficial properties of a perfect laxative; effectually cleansing the system, dispelling colds, headaches and fevers and permanently curing constipation. It has given satisfaction to millions and met with the approval of the medical profession, because it acts on the Kidneys, Liver and Bowels without weakening them and it is perfectly free from every objectionable substance. Syrup of Figs is for sale by all druggists in 50c and \$1 bottles, but it is manufactured by the California Fig Syrup Co. only, whose name is printed on every package, also the name, Syrup of Figs, and being well informed, you will not accept any substitute if offered.

—BASIS—"Terrible storm we had last night—terrible thunder and lightning." East—"Well, you see, I reached home about two, and I didn't hear the storm outside."—Inter Ocean.

—A VIEW—"Man originates—the monkey imitates," said the professor. "Then that settles the question of the origin of the species," returned the student. "Man is the original; the monkey the imitation."

—PURCHASE—"See here! you said this nag went a mile last month in 2:25, but I can't get a four-minute clip out of him." Dealer—"Well, sir, to be candid with you, he made that time coming through from Canada on a cattle trail."—Judge.

—A DUKE is a gentleman who tries to be like a lady-like manner.—Boston Transcript.

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