

when the surface soil is exhausted, has an abundance of the best fertilizers in his subsoil; and instead of buying fertilizers and spreading them over the surface, he sets his plow a little deeper and turns them up from his own stores in the subsoil. And when the plants have consumed the supply thus obtained, there is still lower down, enough of the same costly materials to replenish his soil a hundred times; for it goes all the way down to depths varying from 10 to 200 feet, all about equally rich, as the table shows it to be at a depth of twelve feet.

To show the money value of this store of plant food in the subsoil of all these lands, we may reckon the commercial value of the phosphoric acid for a single foot in depth on one acre. The second foot of these soils, that is, the subsoil from the depth of one foot to two feet, in every acre, contains 11,157 pounds of this acid. At ten cents a pound this would cost \$1,115.70. The next foot below, that is from two to three feet in depth, contains in each acre 13,996 pounds of phosphoric acid, which would cost \$1399.60.

Thus it is seen that two feet only of these subsoils, contain on each acre as much phosphoric acid as could be bought in commercial fertilizers for \$2,515.30.

The soils as above shown, from which these results are obtained, were selected as representative soils from the lands of all grades.

If we should calculate the commercial value of the other fertilizers, as potash, soda, sulphuric acid, chlorine, and organic matter found in the subsoils of a single acre, and if the calculation be extended to a depth of ten feet or one hundred feet, the result would be somewhat startling. Such a calculation would not fall far short of a demonstration of the often repeated assertion, "Our Lafayette soils are inexhaustible."

## NATURAL HISTORY—NATIVE TREES AND SHRUBS—TREES.

*Ash*.—White ash, blue ash, black ash, prickly ash.

*Coffee bean tree*.

*Cottonwood*—a species of poplar.

*Crab-apple*.

*Elm*—White elm, and red or slippery elm.

*Dogwood*—

*Hackberry*.

*Hickory*—Thin and thick shell-bark hickory, bull-nut hickory, pignut hickory, pecan nut hickory.

*Ironwood*.

*Locust*—Honey locust.

*Linden*—or basswood; sometimes called whitewood.

*Mulberry*.

*Maple*—white or soft maple, hard or sugar maple, ash-leaved maple or box-elder.

*Oak*—White oak, burr oak, post oak, rock or chestnut oak, black oak, pin oak, laurel oak, chinquepin oak, poison oak.

*Persimmon*.

*Sycamore*—or buttonwood.

*Walnut*—Black walnut, and white walnut or butternut.

*Wild cherry*—Black and red varieties.

*Willow*.

*Shrubs*—Blackberry, buttonbush, coralberry, elderberry, gooseberry, greenbriar, hawthorn, black haw, raspberry, red bud, paw-paw, hazel-nut, wild plum, sumach, wahoo or staff tree, laurel bush, wild, black, or Missouri currant, wild roses, serviceberry.

*Vines*—Honeysuckle, wild grapes, woodbine.

## NATIVE ANIMALS.

Bear, beaver, buffalo, catamount, chipmunk, coyote, deer, dear mouse, elk, fox (gray and red) gopher, ground mole, groundhog, mink, muskrat, otter, opossum, panther, prairie dog, prairie mouse, pouched rat (commonly called pocket gopher), rabbit, jack rabbit, raccoon, skunk, squirrel, red gray and black varieties, swift, weasel, (wolf prairie and gray and black varieties), wild cat.

*Birds*.—Wild turkey, grouse or prairie chicken, wild goose, swan, pelican, wild ducks (many varieties), snipe, plover, pigeon, partridge, gray and bald eagle, raven, crow, turkey buzzard, owl, hawk, finch, mocking bird, blue jay, kingfisher, gull, robin, bluebird, blackbird, bobolink, woodpecker, oriole, sapsucker, night hawk, whipporwill, curlew, sandhill crane, blue heron, swallow, wren. These, some of which have several varieties, are the more common species of birds that have been found here ever since white men first knew the country.

The black "Missouri honey bee" is an original native.

## MASTODONS IN LAFAYETTE COUNTY.

Several years ago Mrs. W. H. Bowen found a monster tooth in Graham's branch, nearly under the bridge of the old Lexington and gulf railroad grade, where Graham's branch puts into Rupe's branch. Mrs. Bowen submitted the specimen to Dr. Alexander, and he pronounced it a genuine mastodon tooth. Master Frank Lamborn, the "printer's devil," of the *Lexington Intelligencer* office, also has a mastodon tooth which was found in Graham's branch. And "thereby hangs a tale." Graham's branch, flowing westward along the southern border of the city of Lexington, is supplied with water mostly from an immense spring (the Mastodon spring), which flows out of the ironated sandbed underlying the bluff formation in all this region. At the point where this spring flows out, and for, perhaps, a hundred feet along down the stream, its bed and margin are miry, or composed of quicksand—very treacherous to tread upon.