

NEWSPAPER BULLETIN.

Number 3.

MISSOURI AGRICULTURAL EXPERIMENT STATION.....

Columbia, Missouri.

February 6, 1897.

FARM MANURES.

Bulletin No. 34 of the Missouri Agricultural Experiment Station, by Director H. J. Waters, deals with the subject of soil fertility, and the production, preservation and use of farm manures, of which the following is a brief summary:

It is estimated that the manure produced each year by the farm animals of the United States is worth the enormous sum of \$2,000,000,000. On the same basis, the value of the manure excreted by the farm animals in Missouri each year would amount to \$150,000,000. This estimate for Missouri is probably too high, since a relatively smaller quantity of foods producing rich manures, such as cotton seed meal, linseed meal, wheat bran, etc., are fed in Missouri than in most of the eastern and northern states. The value of this product of the farm is large enough, however, to warrant our most serious attention and to justify the employment of such measures as are necessary to preserve without waste and apply in the best manner all the manures produced.

Fully one-half of the manure produced in Missouri, is wasted, which according to the foregoing estimate means a loss to the farmers of this state from this source alone of \$75,000,000.

The manure from young growing animals is less valuable than from mature ones, the food being the

the fertilizing constituents taken into the body. In milch cows and growing animals from one-half to three-fourths of the fertilizing constituents of the food passes into the manure. In fattening or working animals it is from 90 to 95 per cent.

The value of the manure is more dependent upon the kind of food consumed than upon the age of the animal; for example, animals fed on cotton seed meal, linseed meal, wheat bran, clover hay or blue grass, will produce a manure very much richer than when fed on corn, oats or timothy hay. The passing of the food through the animal adds nothing to its fertilizing value except to render its ingredients somewhat more readily available to the plants.

Sources of Loss. Faulty methods of feeding; improper arrangement of pastures and feed lots; from allowing the manure to stand in piles in the barn yard or in the field, where it ferments too rapidly; the waste of the liquid manure. As a rule the manure should be hauled direct from the barn to the field and spread. Nothing is added to manure by allowing it to rot in piles, and much is likely to be lost by this process. The bulletin suggests cheap and satisfactory means of remedying these losses, and discusses the best methods of maintaining soil fertility and of renovating worn out land. This bulletin is for free distribution to the farmers.