

The Food of Woodpeckers.

Bulletin No. 7 of the United States Department of Agriculture contains a report of investigations relating to the food of woodpeckers. Six hundred and seventy-nine stomachs were examined, representing seven species—the downy woodpecker, hairy woodpecker, flicker, red-headed woodpecker, red-bellied woodpecker, yellow-bellied woodpecker, and pileated woodpecker. The downy woodpecker is considered to be of the most economic value. All the woodpeckers were found to eat grasshoppers, the red-head eating the largest percentage. The advantage to farmers and to granaries from the insectivorous tastes of woodpeckers is insisted upon.

Crow Blackbirds, Hawks, and Owls.

The United States Department of Agriculture Year Book for 1894 contains some interesting information regarding the birds mentioned above. The contents of the stomachs of 2,258 crow blackbirds were examined, and the results go to show that the crow blackbird is a beneficial rather than an injurious bird. The popular belief that they are nest-robbers was not sustained, as only 37 of the stomachs examined contained remains of eggs. It is the belief of the writer that, though crow blackbirds may cause considerable injury at times when they collect in large flocks, the damage is more than balanced by their destruction of injurious insects, and that they should not be indiscriminately destroyed.

Regarding hawks and owls, a protest is entered against the prejudice commonly existing in regard to birds of prey, and it is shown that the majority of them are not only harmless, but positively beneficial to farmers by destroying injurious mammals and insects. Among the harmful birds of prey are included the gyrfalcon, duck hawk, sharp-shinned hawk, Cooper's hawk, and goshawk.

Muriate of Potash as a Fertilizer.

C. A. Goessmann, of the Hatch Experiment Station, Mass., reports some experiments with muriate and sulphate of potash. Both are reported upon favorably as potash fertilizers, but the muriate of potash appeared to reduce the lime content of the soil, and to cause an unhealthy growth of vege-

tation where it had been used for a number of years. The injurious action of muriate (chloride) of potash apparently consisted in rendering the lime compounds of the soil soluble, and thus causing a loss of lime in the drainage water. The application of slacked lime, at the rate of from 500 to 600 lbs. per acre, remedied the evil and produced a healthy growth of vegetation.

Muriate of potash is regarded as a safer source of potash upon deep soils with a free subsoil than upon shallow soils with a compact clayish subsoil. On the latter soils there is danger of an accumulation of chloride of lime and magnesia near the roots of plants, both of which have an injurious effect. On the more open soils these compounds, being soluble, are drained out of the soil. For shallow soils, sulphate of potash is a safer fertilizer.

Composition of Milk.

It is well known that the composition of cow's milk varies very widely, and that it is very difficult to obtain reliable figures regarding the average composition of milk of the different breeds. Bulletin 36 of the Hatch Experiment Station contains figures representing the probable average composition of the milk of different breeds. It must be borne in mind, however, that individuals of the different breeds will vary very widely from the averages given, and that any figures regarding this matter can be only approximate. Following are the averages as given in the bulletin:

Average cow's milk:

Water	87 per cent.
Fat	4 "
Casein and albumin	3.2 "
Milk sugar	5.1 "
Ash	0.7 "

A different manner of stating the composition would be:

Total solids	13 per cent.
Fat	4 "
Solids not fat	9 "

Average composition of milk of different breeds:

	Total Solids. Per cent.	Fat. Per cent.	Solids not Fat. Per cent.
Holstein	11.8	3.2	8.6
Ayrshire	12.5	3.7	8.8
Shorthorn	12.9	3.8	9.1
Devon	13.4	4.4	9.0
Jersey	14.7	5.0	9.7
Guernsey	14.7	5.0	9.7