



Meadowlark

ABOUT the time that the orchards and trees about the house ring with the songs of robin and bluebird, or often even earlier, the open pastures and fallow fields regain their population of meadowlarks, which many people think are the most tuneful of our commoner small birds. They are, God be praised, very common indeed; a patch of grassland at dawn tosses them up by scores on their short essays of simultaneous song and vertical flight. Less ambitious than their European cousin whom one of the most lyric of poets saw as consanguine and so immortalized, our meadowlarks nevertheless sing as sweetly on their limited flights. Perhaps some day this continent will develop a poet worthy of proclaiming him.

The meadowlark is a beautiful example of how great comeliness can be achieved without the use of bright feathers. Almost everything about him is brown or black, yet he is undeniably a handsome bird. The brown sleekness of his back and head, his mottled breast, the striking dark gorget across his throat, all mark him as a gentleman who knows how to dress conservatively yet with distinction. And, incidentally, set the fashion for the younger set among other birds; for the juvenile plumage of other species often is reminiscent of his mottled brown.

There is a good evolutionary reason for this preference for dried-grass-colors on the part of the meadowlark—or at least it would have been hailed as a good reason in the less sophisticated and skeptical earlier days of Darwinism. His handsome suit is also good camouflage: a ground-dweller cannot afford to mark himself with attention-catching blues and yellows, like a bunting or a finch.

Science News Letter, April 7, 1934

MEDICINE

Synthetic Cortin to Aid Addison's Disease Victims

Scientists Learn Make-up of Hormone So That Now Scarce Natural Extract May be Produced Cheaply in Laboratory

THE LIFE-SAVING hormone of the adrenal gland cortex has for the first time been obtained in pure crystalline form and its chemical composition discovered. This important announcement was made by Dr. E. C. Kendall of the Mayo Foundation, Rochester, Minn., at the meeting of the American Society of Biological Chemists.

Cortin, as this hormone is called, has the formula $C_{20}H_{30}O_5$, Dr. Kendall and his associates found. Discovery of its composition means that chemists can now work toward the laboratory production of the hormone.

This hormone has saved the lives of victims of hitherto hopeless Addison's disease, the ailment in which the skin turns dark and the patient gradually wastes away. These patients have thus far had to depend on cortical extracts from animal glands. The scarcity of this material and its expense have made it impossible to treat all of them, since the treatment must be kept up con-

tinuously in order that the patient may go on living. With the discovery of the hormone's chemical structure it may be possible to manufacture it and thus increase the supply.

Besides its life-saving effect, cortin was found by the Mayo Foundation group to act as a brake on the thyroid gland. This U-shaped gland in the neck secretes a hormone, thyroxin, which stimulates the body's use of protein. When the gland is over-active and too much of its hormone is produced, it opens the throttle too wide and makes the body burn up protein too fast. People suffering from this condition are in consequence very thin. But cortin puts a brake on this process. This action is a good example of the reciprocal effect of one gland secretion on another, about which scientists are learning more and more. Sometimes these glands of internal secretion act to reinforce each other and sometimes they have an antagonistic effect on each other's activities.

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METEOROLOGY

Four Daily Weather Forecasts Instead of Two, is Plan

REPORTS on the state of the weather at intervals of six hours instead of twice a day as at present are planned under the "new deal" for the weather being instituted under the leadership of Willis Ray Gregg, recently appointed chief of the U. S. Weather Bureau.

In his first public statement of what improvements in weather forecasting are contemplated, Mr. Gregg revealed that in addition to nation-wide reports at 8 a. m. and at 8 p. m. it is hoped to provide similar reports at 2 a. m. and at 2 p. m.

Since much of the weather we know is manufactured high in the air, upper air data of temperature and humidity are especially valuable. At present this

information is obtained by means of special "meteorograph" instruments carried aloft by airplanes to 20,000 feet and while the observations at half a dozen widely distributed stations are of great aid, Mr. Gregg hopes to increase the number of stations at which upper air soundings are made.

With more information available, Mr. Gregg is confident that it will be possible to increase the already high accuracy of the weather forecasts and also to extend the period of the forecasts.

With additional observations available, the use of the method of air mass analysis recommended by President Roosevelt's Science Advisory Board will be begun.

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