

POULTRY

EFFECTS OF CLIMATE AND SOIL.

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TOO little attention is paid in selecting a breed to the possible effects of climate and soil upon the development of the fowl. While the data is not abundant, observation having largely neglected this important matter, such data as is available seems to prove that some breeds are better adapted to certain sections of the country than others.

During one of my Southern trips I observed that in South Carolina and Georgia, black fowls were particularly abundant and of exceptional excellence. Black Langshans, black Leghorns and black ducks—especially the Muscovy—were favorites, and better specimens it would be difficult to find in other parts of the community. In conversation with some very intelligent breeders I learned that fowls of this color did better than any other, even the hawks of that country being largely black. The intense heat of the sun seemed to bring out the rich lustre of the plumage. Brown Leghorns were another favorite fowl and the soil of the hills of Georgia seemed to be particularly well suited to develop the characteristic plumage of this breed. On the other hand fowls that were white, or largely so, seemed to be less successful, not only because the soil itself left a stain upon the plumage, but also because the intense heat caused a preponderance of the undesirable yellow tint upon the plumage. Such birds, also, were less hardy and vigorous than their darker-colored relatives.

In regions where there is an abundance of iron in the soil, the black-red type of plumage, such as is shown in the partridge Cochin, the brown Leghorn, and the black-breasted red Game, develop finely, the iron seeming to add to the strength of the color and preventing the presence of the common defect of white in wings and elsewhere. The avoidance of this defect is a matter of great importance, but this is not all the advantage, for the presence of the iron in the blood seems to bring out the richness of both the red and the black in the plumage, adding greatly to the beauty of this beautiful combination.

In the granite regions of New England, where the air is

clear and in some months of the year sharp and cold, the light Brahma seems to develop to its highest degree of perfection. The fowl gets the maximum of size and the minimum of objectionable yellow in feather on just such a soil and in just such a climate. New England has not a monopoly of the breeding of this fowl, but other sections, which possess a similar soil and climate share with New England the advantages in breeding this, the largest of our Standard breeds.

It is not pretended that all breeds and varieties can not be bred to a high Standard of excellence in each and every section of the country. The fact is that they can and are so bred. But it does seem to be clear that some sections possess a natural advantage over others in breeding certain varieties, and that outside of those sections the said varieties are bred to equal perfection only by the exercise of superior skill and better management. The obvious lesson, therefore, to be learned is that in selecting a breed a beginner should first of all study the conditions of soil and climate and select in reference thereto, in order that he may have nature, silently but powerfully working in his favor, instead of working with like stillness and force against his efforts. It is better to make a friend of nature than to have nature as a foe; it is easier to win success with her help than to wrest it from her reluctant hand. Success is difficult enough of attainment with all the help that soil and climate lend, and a gratuitous struggle against the force of earth and air is often as unwise as it is unnecessary. Still, if one has the sand in him, he can fight successfully against such odds as soil and climate bring, and possibly success will seem all the sweeter for the struggle.

ANÆMIC POULTRY.

BY PROFESSOR WOODROFFE HILL, IN *Poultry*, ENGLAND.

IN the numerous poultry specimens submitted to me for investigation as to the cause of death I have frequently had to mention anæmia. The term anæmia signifies poverty or deficiency of blood. In this disease a great diminution in the quantity of red globules or corpuscles takes place; from the normal condition of 130 per 1000 of blood they are in advanced cases of anæmia reduced as low as 50 per 1000. The *liquor sanguinis*, or fluid in which the corpuscles are suspended, is deficient in albumen, and has generally an excess of saline matter. It is important to recognise the gravity and results of anæmia, for I find amongst