What the Future Holds for Forages

R. M. THORUP
Chevron Chemical Company
Fort Madison, Iowa

M. H. McVICKAR
Chevron Chemical Company
San Francisco, California

I. INTRODUCTION

Someone has said, “Today is the tomorrow we dreamed about yesterday.” And so it is that the future is nothing more than a continuation of the past, with a brief interlude which we call the present. Recognizing this relationship allows us to project into the future, using our experience of the past to guide us.

The time factor is the most difficult to predict because the development of a new system or new method is dependent upon many considerations, including the needs and demands of people, economics, availability of materials and/or equipment, and often even political considerations.

We have seen tremendous strides in agricultural progress, which can be attributed in large measure to the application of science. Yet we must also recognize that there has been a relatively long lag period from the time of the earliest discovery and application of these scientific principles to their widespread adoption by farmers.

Forage fertilization is a prime example of this. The following observations were made more than 120 years ago by George W. Drisco (1851), Washington County, Maine: “Considered as a whole, three-fourths of the meadows in the United States are suffering a gradual exhaustion of the elements which form timothy, herds-grass, blue-grass, and clover. Not one farmer in ten thousand keeps an exact account of debit and credit in reference to the bone-earth and potash taken from any field in hay and grass, and restored to it in manure of any kind. If such an account were kept, the book would show that the soil parts with vastly more alkalies and other elements of crops, than it receives. Neat cattle should be so managed as to make this account balance.”

Professor Levi Stockbridge (1877) cited results of fertilizer experiments conducted on the farm of the Massachusetts College of Agriculture in 1873–