

can malts are longer grown. In the June malt of India the plumule is less than one third the length of the kernel. It seems inconceivable that the normal changes of endosperm would take place with a sub-active embryo, as the starch-converting enzymes are secreted by the epithelial layer of the scutellum. The conversion is, however, quite good. A comparison of the June and December malts is given below.

	June	December
Starch per cent.	43.07	39.69
Reducing sugars as invert per cent.....	2.64	3.31
Reducing sugars as maltose per cent.....	4.83	5.89
Sucrose per cent.....	3.71	2.72
Diastatic capacity on Lintner's scale.....	51.10	56.90

The explanation of this behavior must rest in the fact that the optimum temperature for the germination of barley is fairly low and that its germination vigor decreases rapidly at temperatures higher than the optimum. The enzyme secretion must not be retarded to the same extent as growth. Maltsters in India believe that the local barleys do not germinate well until the winter season approaches and that the viability begins to wane by May. In June the percentage of germination is much reduced. Tests made in Washington from a sample of the barley which germinated weakly in India the previous June show its vitality to be unimpaired when grown at temperatures such as exist in India in December.

If saturated burlap were used to lower the temperature of the malting rooms and increase the humidity in India, it is probable that the June malt would behave more nearly like that of December.

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A FABLE

THE following fable was found in an old palimpsest of obscure origin, but probably derived from both English and French sources. A critical study suggests that the work of the original author has been supplemented by the copyists, especially in the addition of adjectives. I transcribe it, however, as it came to me. Since truth is eternal, the fable may even yet have a bearing on modern speculation.

The Genealogy of Theory

A Fable

Suggestion, an eager Boy, met a winsome Maid, Credulity by name, and begat Plausibility, an enchantress.

She mated with a chance acquaintance, Coincidence, and bore him Belief, a stalwart Youth who set out to conquer the World.

But across his shield was blazoned the bar sinister. Reason had not consecrated either union.

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AMANITA MUSCARIA IN MAINE

Amanita muscaria in the coastal woods of eastern Maine is frequently found with pitted upper surface and indented edges, the pits and indentations bearing tooth marks apparently of rodents. The common red squirrel has twice been seen by the writer, holding bits of this mushroom in his fore paws and eating them. A friend, a geologist, says that he has a number of times observed the red squirrel's habit of eating this mushroom. Are these observations of any interest to students of mushroom poisoning?

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SCIENTIFIC BOOKS

A Text-book of General Botany. By WILLIAM H. BROWN. Ginn & Company, pp. xi + 484, 1925.

Laboratory Botany. By WILLIAM H. BROWN. Ginn & Company, pp. xiv + 168, 1925.

ON opening this most recent of the textbooks of botany one is surprised to find the author writing from a university in the tropics, the University of the Philippines. One's interest is at once aroused as to how the subject will be presented by one teaching in a tropical country, and whether a text so written is applicable to classes in temperate zone countries. We will let the book answer for itself.

There are two outstanding features in Professor Brown's text: first, its universality in the selection and presentation of subject-matter, and second, its excellent illustrations.

The first is the natural outgrowth of many unsuccessful attempts to adapt texts written by botanists in temperate zone countries for temperate zone students, for the use of students in tropical countries. The author states in his preface: "In this book an attempt has been made to treat botany from the standpoint of general principles rather than as illustrated by special plants used as types, and from a world point of view rather than from a local one." The author proceeds to carry out this purpose by discussing each topic in a general way; defining, describing and locating, whether it be a sieve tube or a starch grain, without mentioning what specific plants may be used to illustrate the point under discussion. This method gives the experienced instructor entire freedom to choose his sieve tubes from squash or sugar cane and his starch grains from potato or rice, hence meets the needs of the teacher in temperate and in tropical countries alike. The beginning instructor, on the other hand, will be aided by the complete labeling, including the name of plant used, of the many cuts used to illustrate the points discussed in the text. This feature will appeal to many botanists and is needed to counteract the seeming tendency to illustrate all botanical principles by the use of a few familiar plants.