



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Germis in the air.—SARTO has determined, by agar and gelatin plates, 10 in each experiment and exposed by the ancient method (cf. SEDGWICK and TUCKER, 12th Ann. Rep. Mass. State Bd. Health, Boston, 1889), the number of bacteria, as counted by colonies, and the kinds found in the University garden and the street air of Tokyo.¹⁷ Several of these tests were made in each month of the year, with observations as to temperature, humidity, wind, etc. He found a high street average in July and August during a period of dust and dryness following a wet season. The garden average increased in November and December in proportion to a large number of windy days. Snow or rainfall always cleansed the air of germs. Of the 55 Bacteriaceae and 17 Coccaceae found, SAITO described 18 as new species, without making much attempt to relate these to forms already known. It is difficult to see, for instance, wherein his *B. rufulus* differs from *B. rubiginosus* described by CATAINO in COHN'S Beiträge 7: 538. 1896; and *Sarcina agilis* appears to differ from *M. agilis* as described by Migula in 1897 only in the easily lost character of pigment formation. Motile sarcinas, however, are rare and should be carefully studied.—MARY HEFFERAN.

Anatomy of Saxegothaea.—This monotypic conifer, restricted to the wet woods of the upper slopes of the Andes of Chili, has long been in demand for morphological investigation. When LINDLEY described it in 1851, he called attention to the transition characters it exhibits between Taxaceae and Pinaceae. Allied with the Podocarpaceae in what are regarded as the more important characters, it shows even more resemblance to the Araucarineae than do the other podocarps, especially in its wingless pollen grains and distinct cone of spirally arranged sporophylls. STILES¹⁸ has examined the anatomical structure of two specimens in cultivation in England, and concludes that the genus is relatively primitive. The structure of the wood of the stem and of the medullary rays is simple; and this, taken together with the simple arrangement of the sporophylls, has convinced the author that Saxegothaea is at least the oldest of the podocarps, and shows derivation from a common ancestral stock with the araucarians.—J. M. C.

Potato breeding.—EAST¹⁹ considers the extensive record of the history of the potato, and future methods of its improvement. Many interesting biological facts of variation and hybridization in the potato are brought together, as well as practical suggestions for the improvement of varieties. The cultivation of other species of *Solanum* for tuber production has not been marked with success, but it is hoped that crosses of the common potato with *S. Commersonii* may produce varieties which are more resistant to disease. Methods of improvement

¹⁷ SAITO, K., Untersuchungen über die atmosphärischen Pilzkeime. Jour. Coll. Sci. Univ. Tokyo, 23: no. 15. pp. 77. figs. 19. charts 2. 1908.

¹⁸ STILES, W., The anatomy of *Saxegothaea conspicua* Lindl. New Phytol. 7: 209-222. figs. 28-34. 1908.

¹⁹ EAST, E. M., A study of the factors influencing the improvement of the potato. Ill. Agr. Expt. Sta. Bull. 127. figs. 10. 1908.