

Leaves, under the microscope are found to have little valves on the under surface which open and close according to the state of the atmosphere, receiving or excluding the atmospheric substances. Through these valves the carbonic acid gas passes into the tree, and uniting with the elements found in water forms the starch and sugar required for the growth of the plant. The fluids in a tree are continually in motion, this motion is affected by the temperature, and is a result of the movement of the Protoplasm of the cells. Protoplasm is a substance always found in cells, and always in a state of motion except when the temperature is too low. Each plant has a minimum temperature of protoplasmic movement below which there is no motion of protoplasm and consequently no growth of vegetable or plant. This minimum differs much in different plants, and accounts for the different keeping qualities of different vegetables and fruits.

For instance, the Professor said he had often been asked by the farmers "Why cannot we keep mangel wurtzel?" In answer would say, that this vegetable if kept at a temperature below its minimum of Protoplasmic movement, which was low—would keep as well as any. The moment the temperature rose above the minimum the plant would begin to grow. Cold would not necessarily destroy the life of the plant.

On the other hand each plant has a maximum of temperature, and when this is exceeded the life of that plant is destroyed. Why? Because under the influence of excessive heat the protoplasm in the cell is coagulated exactly like a boiled egg, and can no more live or move again than a boiled egg will hatch.

In this connection the Professor described some interesting experiments regarding the growth of plants, incidentally stating that in some countries. Germany for instance, almost every garden was an experimental station. The growth of plants could be noted on a sheet of ruled paper tacked to a fence, and if the changes of temperature were noted by the thermometer it would be found that the growth of the plant was slow or rapid as the mercury rose or fell, but that the effect of changes of temperature would not be noticed on the plant till some hours later, the rate of elongation of the shoot generally following the fluctuations of the mercury at some two hours distance. What is a fruit? Simply something to hold seed. A pea or bean

pod consists of the botanist, is apple contains

When a tree sugar more than of the fles the amount of

Speaking of the speaker the direction. If obtained, the varieties proved be said to be superior, times. It seen keep to what w

The Professor health of plant the fungi. Vine of the natu decaying birch the tissue of t to grow thin and seeds (spores) and All plant disea manner growing distinguished as the latter rest in rot is a disease of the once popular to destroy all su

In concluding meeting with the and would be gl the Association of

Questions on asked by vario answer to one