

The great difference between a grain of wheat and a marble of clay lies in the fact that the former has life, and the latter has no life. Nothing can be done to induce a marble to grow. This is not so with a grain of wheat. As long as it is kept in a dry condition, it is simply sleeping. When it is placed in the ground at the right season of the year and surrounded with the proper amount of moisture, heat, and air, it soon awakens. A great change takes place in a very short time. The grain

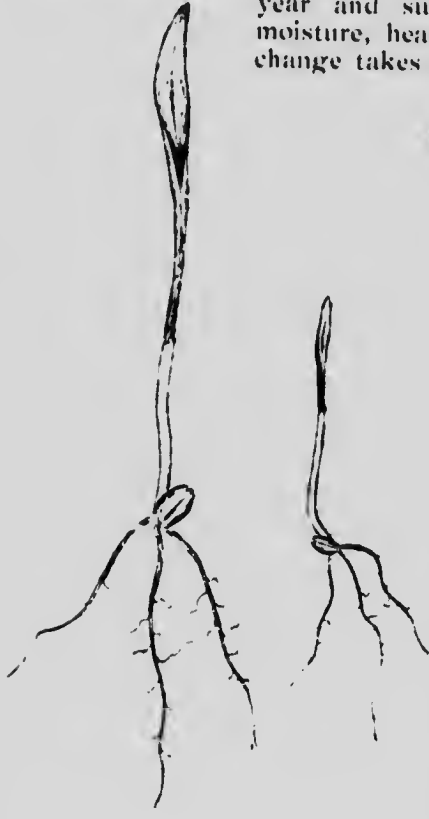


Fig. 19. Plants produced from grains of wheat of different sizes, nine days after planting.

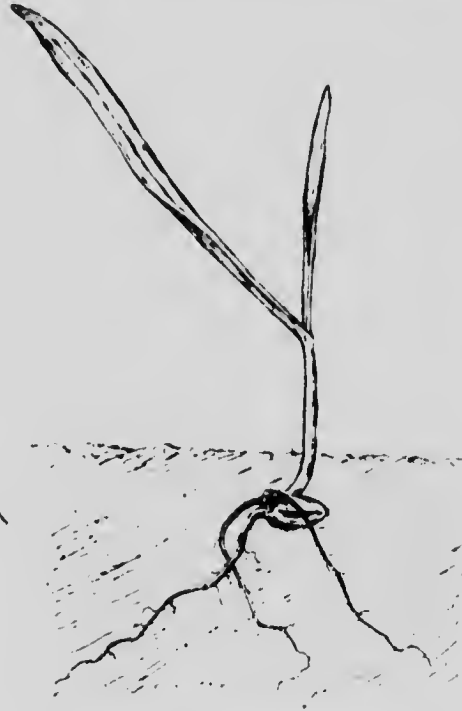


Fig. 20. Young plant of wheat, thirteen days after planting.

absorbs water, the embryo swells and begins to grow, and in a few days a young plant is produced.

The little plant at first obtains its food from the starchy part of the grain. As soon, however, as it sends its roots into the soil and its leaves into the air, it obtains its food from outside sources. The little, fibrous roots get food from the soil in the form of liquids, and the green leaves get food from the air in the form of gases. With the proper conditions, the plant makes a wonderful growth; and, as time passes, we observe the formation of several long, slender, upright stems, with a very interesting and peculiarly arranged head on the top of each.