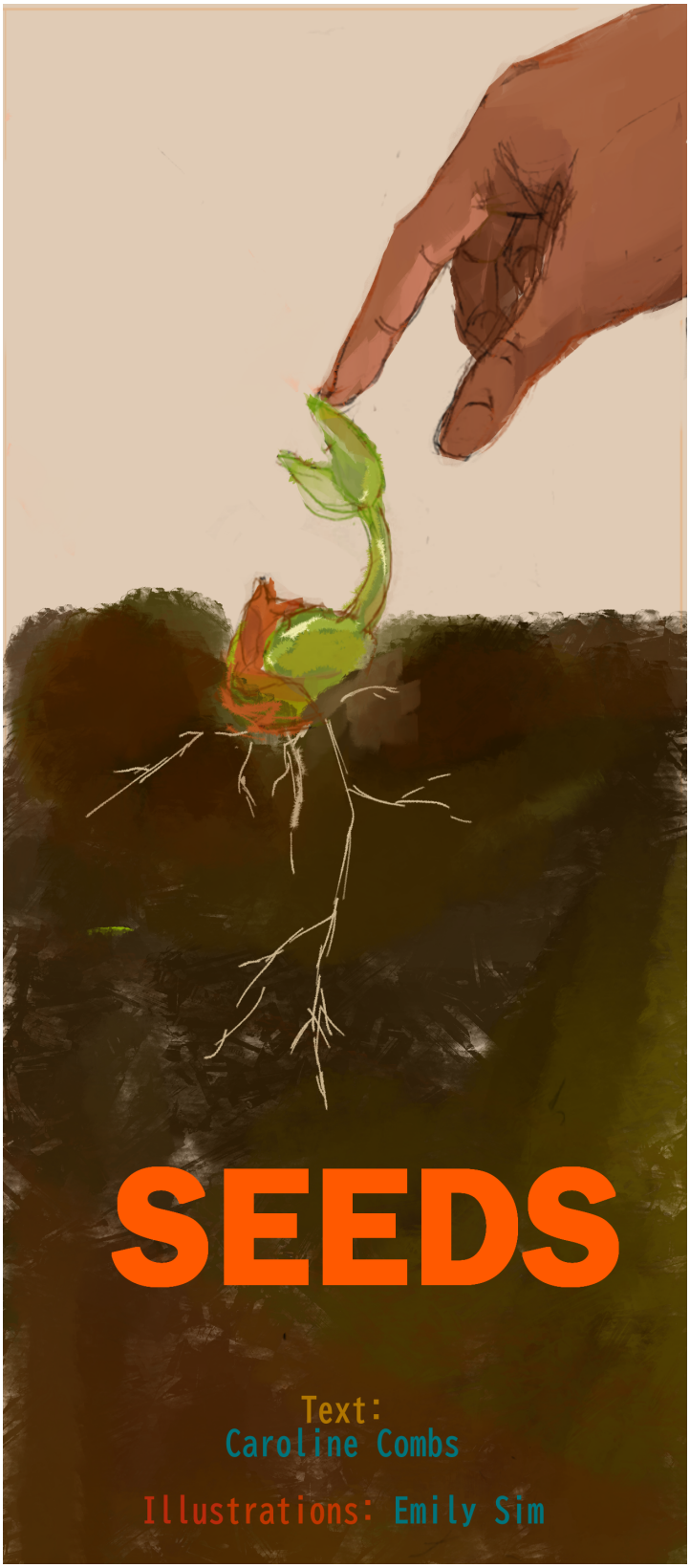


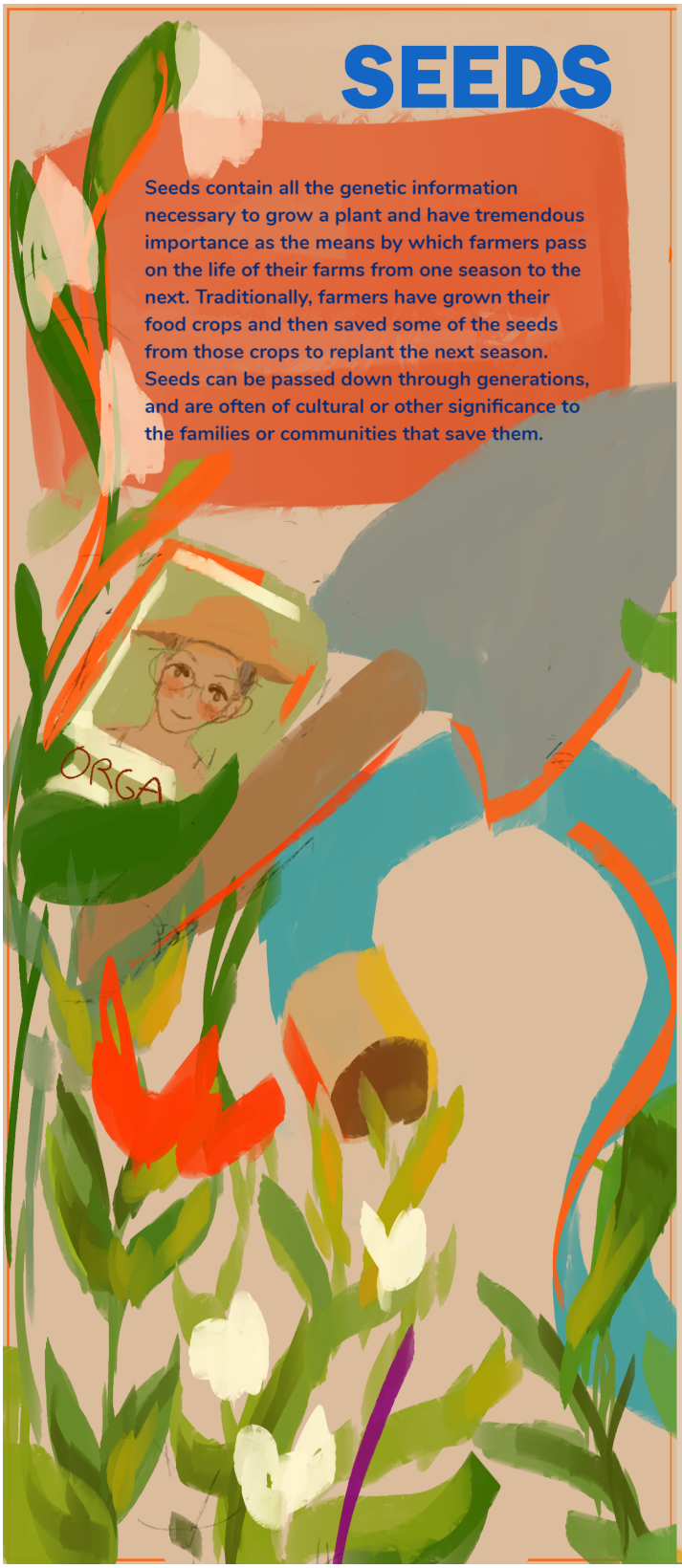
SEEDS

Text:
Caroline Combs

Illustrations: Emily Sim

SEEDS

Seeds contain all the genetic information necessary to grow a plant and have tremendous importance as the means by which farmers pass on the life of their farms from one season to the next. Traditionally, farmers have grown their food crops and then saved some of the seeds from those crops to replant the next season. Seeds can be passed down through generations, and are often of cultural or other significance to the families or communities that save them.



SEED TYPES

OPEN-POLLINATED CULTIVARS

Seeds from open-pollinated cultivars can be harvested and used to plant the next season's crops. These are the seeds that are found in nature, that have not been altered by human interference (except through selective breeding). Farmers who save their seeds have seed sovereignty because they are in control of the seeds that they plant and are free to share or trade them with other farmers. They can save seeds from plants that have traits they desire and replant those seeds in order to cultivate new varieties over time, which leads to a lot of diversity in the varieties of crops that different farmers plant. Farmers who save seeds are also not reliant on outside sources to get their seeds. The disadvantage is that saving seeds takes time and land and requires specialized knowledge and equipment.

HYBRIDS

Hybrids are plants that have been carefully pollinated in a controlled environment so that they exhibit desired traits, like disease resistance or higher yield. Hybrid seeds are appealing to farmers because they tend to produce very uniform crops with a high yield. However, the second generation of plants that grow from hybrid seeds do not have many of these selected-for traits, because they have been cross-pollinated outside of the controlled laboratory environment. Therefore, farmers who want to grow hybrid crops must purchase new seeds every season, which is expensive and makes them reliant on seed companies.

GMOS

GMO (genetically modified organism) crops are crops whose DNA has been altered to give them specific traits and are very controversial. Whereas hybrids have been carefully bred and pollinated to have desired traits, GMOs have had new genes inserted into their DNA through genetic engineering. Crops can be engineered to have additional vitamins and nutrients in them, to produce their own insecticide, or to be resistant to certain diseases. Proponents of GMOs say we cannot feed the global population without these hardy and nutritious crops, while opponents say that GMOs destroy farmers' seed sovereignty and could severely reduce biodiversity.

SEEDS

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RESTRICTIONS

Traditionally, seeds have been a communal resource that farmers have been free to save and trade. However, this has changed with the introduction of hybrid and GMO seeds. Companies are able to patent their hybrid and GMO seeds because of intellectual property laws. Utility patents and plant variety protections give the companies who "invent" these seeds sole right to breed and distribute them, although opponents to this practice argue that the companies haven't invented life and that the vast majority of the plant DNA in these seeds already existed in nature before the companies claimed them. These patents give companies who cultivate hybrid and GMO seeds more control over the seed market because no one else is allowed to produce, plant, save, trade, or sell these seeds without the companies' permission. Large companies who have the capacity to fund research and large plant-breeding operations can out-compete smaller seed companies and buy them up. The seed industry is now heavily consolidated, with only a few large corporations having a monopoly on the seed market. This makes it much harder for farmers to access diverse varieties of seeds and means they have to pay a lot of money to seed companies every year to be able to plant their crops.

SOLUTIONS

When it comes to finding ways to increase seed sovereignty and diversity, we are all able to contribute. Public opinion and consumer choices have a large impact. People can demand a more biodiverse diet, which is better for the people who eat it, and the people who grow it, and public pressure and media coverage can encourage governments to help create programs to support seed saving and sovereignty.

Farmer-to-farmer seed saver exchanges and knowledge sharing in local networks can make diverse seeds more available to farmers so they aren't reliant on big companies to procure their seeds. Equipment sharing collectives can make it more feasible for farmers to do their own seed saving so that they don't have to pay the entire cost of the equipment necessary for seed processing. Open seed catalogs and libraries that make seeds available for people to use however they wish can also help.

It is also important for all of us to recognize the cultures and communities that seeds come from. Many seeds have been appropriated from the communities that originally cultivated them, so rematriating those seeds can give those communities back the ability to determine how they will be used and distributed.

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