North Dakota is known to be a cooler state, meaning it’s important to plant vegetables at the right time so they don’t freeze. Since the growing window is much shorter in North Dakota than in other states, it would be best to begin vegetables inside before transplanting them outside so they get a head start while the weather is still too cool to plant the seeds outside. Greenhouses and high tunnels extend the gardening season in North Dakota, and other tactics such as planting seeds in a pot placed against a brick wall also help with keeping seedlings warm during cool spells in North Dakota.

**Zone 3:**
- **April:** Begin tomatoes and pepper plants inside.
- **May:** Begin spinach, peas, lettuce, kale, cauliflower, cabbage, Brussels sprouts, broccoli and beets inside. Plant potatoes outside.
- **June:** Transplant tomatoes, peppers, spinach, peas, lettuce, kale, cauliflower, cabbage, Brussels sprouts, broccoli and beets outside. Begin beans, cucumbers and carrots outside.

**Zone 4:**
- **April:** Begin beets, broccoli, Brussels sprouts, cabbage, kale, onions, peas, peppers, spinach and tomatoes inside. Plant potatoes outside.
- **May:** Plant beets, broccoli, carrots, kale, lettuce, peas and spinach outside.
- **June:** Begin beans inside. Plant Brussels sprouts, cabbage, cauliflower, onions, peppers and tomatoes outside. Begin corn, squash and cucumbers inside.
- **July:** Plant beans, corn, cucumbers and squash outside. Begin beets, broccoli, carrots, kale, lettuce and spinach inside.
- **August:** Plant beets, broccoli, carrots, kale, lettuce and spinach inside.
North Dakota’s soil and how it affects agriculture:
The majority of North Dakota’s land is used for agriculture despite it being a state that experiences more cold than other states. Nearly 40 million acres of land is devoted to farming or ranching within North Dakota. Out of all the vegetables and crops grown in the state, North Dakota leads in producing dry edible beans like navy beans or pinto beans. North Dakota also grows plenty of canola, flaxseed, honey, durum and spring wheat. In the western portion of the state, soils become sandier, but near the center part of the state, the soils are rich, dark and fertile. This is most likely because Mollisols are the most common dominant soil order throughout the state. North Dakota is well-known for its excellent soil, and the state’s motto even says “Strength from the Soil.”

Types of dominant soil orders within North Dakota include:

**Mollisols:** Almost the entire state of North Dakota is made up of Mollisols soils. These soils are fertile and excellent for crop growth. Mollisols are darker in color than most soils.

**Entisols:** These kinds of soils are mostly along the western border of the state. Entisols are sometimes able to be used for crop growth, although some types of these soils are sandy or shallow and don’t hold moisture well so if choosing to grow vegetables in these soils, amendments may be necessary.

**Vertisols:** These soils aren’t very common throughout North Dakota, and they are only present in very small patches in the center of the state as well as along the eastern border. These soils may have high nutrient content, but they are mostly clay, which makes them not so great for cultivation without amendments to the soil.

Average rainfall in North Dakota:
Along with being a cooler state, North Dakota also isn’t overly saturated by rainfall. Part of the reason the state does so well in agriculture is not only because of its excellent soil, but also because of its sub-humid climate. Rainfall varies depending on which part of the state you live in. In eastern North Dakota, average annual precipitation varies from 18.8 inches a year in Jamestown to 22.6 inches a year in Fargo. In central North Dakota, average annual precipitation varies from 17.2 inches a year in Minot to 19.6 inches a year in Rugby. In western North Dakota, average annual precipitation varies from 14.4 inches a year in Williston to 18.3 inches a year in Kenmare. Check out our wide selection of vegetable seeds and plants at ufseeds.com!