

## Getting Started in Asparagus Productions

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Asparagus will grow well on a sandy loam soil or a heavier soil, as long as it drains well. Try to enrich the soil as much as you can before planting by increasing the organic matter content. Sudax can be seeded and let grow throughout the summer and mowed several times to build up soil organic matter, and then plowed under in the fall. Asparagus should be productive for 15 or more years so the more organic matter you can build up in the soil ahead of time, the better it is for the planting.

Good soil nutrient build-up is important with asparagus. You only get one chance, before planting, to adjust soil levels at the root zone. These elements are not mobile, and if you miss the opportunity to incorporate them into the soil before planting, it is impossible to move them down into the soil later without greatly disturbing the roots. Apply 250 lbs. of phosphorus (P) and 300 lbs. of potassium (K) per acre. Test the soil to see how much you already have in the soil. You can then subtract the amounts already in the soil from the above numbers. P and K have to be tilled into the soil (usually during the fall before planting or before making the furrows in the spring) so it will be there for the roots to utilize as the plant is growing.

An asparagus crown is the root system of a one-year-old plant that is grown from seed. Buds enlarge to produce the spear. Buds are arranged in a dominant hierarchy system where the first bud is the largest, and each succeeding bud gives rise to a smaller diameter spear. This is why you have to stop harvesting after a specified period, otherwise, you will exhaust the food reserves in the crown and the plant will die.

For new growers who would like to harvest the year after planting, crowns are the best bet. You can receive crowns in bulk or in bundles of 25 crowns per bundle. When you receive them, separate the different sized crowns into separate piles for small, medium, and large. It takes about an hour to separate 1,000 crowns. When done, plant all the smalls together in the same row, all the mediums together, and all the large crowns together. Do not plant a small crown next to a medium or large sized crown. This will cause the larger one to shade the smaller one that will never attain its full growth potential.

You can grow your own transplants, but remember cost of hybrid seed is expensive. Seed should be sown in a greenhouse, and can then be set out as 12 weeks old transplants into the field. With seedling transplants, you cannot harvest the following year but have to wait an extra year. In comparison to crowns, you lose one year of harvest when starting with greenhouse transplants.

Crown spacing in the row can be anywhere from 9-18 inches. Long term studies done in Oklahoma show that there is really no advantage of planting 9 inches between crowns in the row. You'll get a larger yield earlier at a 9 inch spacing, but after 4 or 5 years, the yield will be the same as an 18 inch spacing of crowns in the row. Also, the closer you space them in the row, the more crowns you will need, so your crown cost increases. A 5 foot spacing between rows and 1 1/2 feet between plants in the row equals 5,800 crowns needed per acre.

On a heavy soil, plant no deeper than 5 inches, on a light textured soil, no more than 6 inches. Research conducted in Oklahoma and Illinois showed the deeper you plant, the more large-diameter spears you harvest but your total yield is less than planting at a shallower depth. Planting at a 4 inch depth gives a larger percentage of small diameter spears but total yield and the number of spears produced per plant is greatest. Planting at an 8 inch depth gives a small percentage of large diameter spears with the lowest total yield and the fewest spears per plant produced.

In the spring, before planting, broadcast 70 lbs of actual nitrogen per acre, and work it in. Use a middlebuster or lister plow to open the soil in opposite directions. Then open a 5-6 inch furrow and dribble some 0-46-0 (triple superphosphate) into the bottom of the furrow. This is in addition to the phosphorus that was added from the soil test recommendation the fall prior. If you don't add this extra phosphorus, you will severely influence the yield of the plant for many years to come.

You can then toss the crowns right on top of the fertilizer. It won't burn them. The roots will then grow through the phosphorus, where it will be taken up by the plant. You can toss the crowns into the trench, and there is no need to take time to spread out the root system of each crown. It really doesn't matter what position the crown takes in the furrow. They all will grow.

Cover the furrows all at once to the original soil level. You do not have to cover them in stages. However, do not drive on top of the newly covered furrows, or you will compact the soil and impede the emergence of the new spears. New spears will emerge in 1-2 weeks time, depending on soil moisture.

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