

When is it too late to use CO2?

Is it too late to add CO2 to my crop? My crop is six weeks into growth and I have about three weeks left. How much should I use, if any?

Carbon dioxide (CO2) is an odorless, colorless gas that does not burn and is not poisonous or harmful at the levels described below. There are about 350 parts per million (ppm) CO2 present in outdoor air. Plants use CO2 as an ingredient in the process of photosynthesis. Indoors, CO2 is often the limiting factor in plant growth because it is quickly depleted from the space when the plants are under intense light. When the level of CO2 goes down to about 200 ppm, photosynthesis stops, and thus plant growth grinds to a halt. It only starts up again when the CO2 levels rise. For this reason garden spaces that are not enriched with CO2 should have continuous air replacement when the lights are on.

When the plant is receiving adequate nutrients, water and light, it responds to levels of CO2 above 350 ppm. The photosynthetic rate increases in a linear ratio to the gaseous enrichment. This results in the production of more tissue-building material and fuel, supporting faster growth.

This increase in growth rate and yield can be initiated almost any time during the plant's life, either during vegetative growth or flowering. As soon as the enriched air gets to the leaves, production increases. Cannabis does not use CO2 during the dark period.

Plants in brightly lit gardens will experience an increase in growth until the level reaches 1,500-2,000 ppm CO2. However, it is difficult to maintain a level much higher than 1,500 ppm unless the space is sealed against air leaks. Some growers shut off the CO2 during the last two weeks of flowering because the plants aren't growing that much and it may affect THC production at the end of flowering.

CO2 is the cheapest way of increasing production in an adequately lit garden. It is very inexpensive to run and maintain, and it increases production, resulting in a shortened vegetative period and an increased yield. If the choice is a second light or automatic CO2, choose the gas.