



COMPOST IN AGRICULTURE

ATLAS  ORGANICS





Introduction

Did you know?

Compost can greatly benefit agricultural growth? More and more farms around the country are using compost to amending their soil. Atlas Organics has worked with nearly 100 farms to deliver high quality Atlas Compost for their crops!

Farms, both large and small, are moving towards organic matter because of the positive impact it has on soil. Plus by using compost, farms can move away from chemical products such as synthetic fertilizers and pesticides in a greater way. The shift from chemicals to compost ripples down all the way to the customers who can consume these farms' products with greater assurance of the quality and growing method.



Top Reasons to use Compost

1. Compost adds organic matter and builds soil tilth

Compost is an incredibly helpful tool for building soil organic matter (SOM.) Organic matter is important for soil fertility and crop productivity

"Compost provides beneficial microbes to the soil, which increases nutrient availability to plants and also leads to increased humus formation." -Us Composting Council

From an agricultural standpoint, there are two main benefits of SOM:

1. Creates a revolving nutrient fund
2. Acts as an agent to improve soil structure- maintaining tilth & minimizing erosion

Studies have shown that using compost to build SOM can work more quickly and effectively than other control methods. (WRAP DC-Agri field trials results)



Top Reasons to use Compost

2. Compost facilitates nutrient uptake

Simply put, though compost is not typically characterized as a fertilizer it IS full of over 26 different nutrients!

"Compost contains all the macro and micronutrients needed for healthy plant growth, but does a lot more than feed! It nourishes the soil and helps to stabilize pH, which promotes nutrient availability, and increases charged sites on organic matter (called the CEC & AEC for cation exchange capacity and anion exchange capacity) to better retain nutrients in soil for longer."

Aspen Hattabaugh,
Atlas R&D Environmental Specialist.

Our Atlas Compost is tested for these nutrients and to make sure all of our product is of the highest quality on the market.



Top Reasons to use Compost

3. Compost helps plants resist pests and diseases

An extensive study of 120 bioassays involving 18 composts and seven pathosystems found positive disease suppression in 54 percent of the treatment combinations. (Termorshuizen et al., 2006.) "Each year, more than 10 percent of the vegetables planted in the US are lost to root rot alone, according to researchers at the University of Florida's Tropical Research and Education Center. Additional crop losses are caused by other soil borne plant pathogens.

Compost can help control plant disease and reduce crop losses. Disease control with compost has been attributed to four possible mechanisms:

1. successful competition for nutrients by beneficial micro-organisms
2. antibiotic production by beneficial micro-organisms
3. successful predation against pathogens by beneficial micro-organisms
4. activation of disease-resistant genes in plants by composts" @epagov

Compost offers protection from pests due to the fact that plants are more vulnerable when nutrients are imbalanced. When you begin balancing nutrients, compost helps vegetation stand up to those pests.



Top Reasons to use Compost

4. Compost helps balance moisture levels

Keeping your plants and crops thriving often comes down to moisture levels. Farmers also must keep an eye on the cost of production, irrigation is a huge part of costs!

Did you know compost can greatly improve moisture levels and help soil retain water??

"Compost helps to conserve water in a few different ways. In its capacity to retain and efficiently transfer water through the soil, compost allows surrounding plants to maximize water for growth. This in turn saves you money by minimizing the amount of irrigation you will have to provide to your project." -US Composting Council

The simple soil amendment of compost can have a huge positive effect on not only your soil but also your wallet



Top Reasons to use Compost

5. Compost helps during drought seasons

Those in the agriculture world understand the impact droughts can have on their crops and overall harvest!

In a 2000 study, A. Maynard found that increasing the water holding capacity of the soil by adding compost helped all crops during summer droughts by reducing periods of water stress. Since vegetables require 1 inch of water a week, at field capacity, the compost amended soil held a 2-week supply of water.

According to the USCC- the frequency and intensity of irrigation may be reduced because of the drought resistance and efficient water use characteristics of compost. Compost reduces soil crusting, which helps with water absorption and penetration into the soil.

Whether farming or building a hobby garden, compost can be a helpful tool to have on hand EVEN during the hot summer months.