

Why the MyChampi mushroom-growing kit is better

2,5 years of thorough research has lead to the MyChampi mushroom-growing kit. With this kit anyone at home can easily grow the best tasting mushrooms by themselves. It simply cannot fail if one follows the instructions.

Mushrooms are professionally cultivated in a well-controlled environment. The most important and necessary factors for a successful growth are humidity, CO₂ in relation to the O₂, and temperature. Of course in a professional situation there are more components than these 3 mentioned above, but these are the main ones and if one of these components is not optimized, the result will be a lesser or a bad output and in worst case even no output at all.

In a home-grow situation the factors above have always been the source of problems, because the mushroom-growing kits are placed somewhere in a living house and there is no possible control over the environment. The necessary humidity for growing mushrooms is between 85-93%, which is almost double as the normal humidity in a home situation in autumn, winter or springtime. [This is exactly where the MyChampi system stands out from the rest of these mushroom-growing kits.](#)

- 1.** First of all our lid is developed in such a way that the little bag with casing soil is not lying on top of the moisture and colonised compost, where it suffocates the compost. The little bag lies in the lid, leaving the compost, as it should be. [See drawing 1 of "The patented system of MyChampi"](#).
- 2.** In the first phase of the cultivation of mushrooms, the CO₂ and humidity needs to be as high as possible for a quick and healthy penetration of mycelium in the casing soil. These are the first few days after the casing soil is put onto the colonised compost.
 - The MyChampi grow kit is the only systems that provides the necessary exceptional high CO₂ and humidity in a closed area by simply turning the white EPS lid and fully closing of the growing kit, leaving a small closed off area underneath. [See drawing 2 of "The patented system of MyChampi" \(day 2 and 5 of the manual\).](#)
 - All other growing kits just fully open the lid, where CO₂ and humidity escape right away.
- 3.** In the second phase the mycelium needs a little lesser temperature, little lesser humidity (85-93%) and way less CO₂ (1200 ppm) to stimulate forming fruiting bodies. In most living houses the CO₂ is far less than 1200 ppm and humidity is most of the time less than half of what's needed. Especially the low humidity is of bad influence for a decent output.
 - In the current mushroom growing kits there is no possibility of optimizing the environment for the growing of mushrooms, because the systems are completely open. The CO₂ is not correct (too low) and humidity is even a bigger problem. The advised daily spraying of water is not sufficient because the water only moistures the top of the casing soil and will quickly evaporate in a dry environment. The influence of spraying on the humidity is just briefly. The results of this too low humidity and CO₂ you can find in the text below.
 - Here again the MyChampi growing kit has a simple but perfect solution: a closed of growing area with a calculated number of small holes for the right CO₂ and for keeping the humidity in the sealed off growing area (the uplifted packaging box). With the extra water tank up in the uplifted packaging box, the humidity rises even further to the desired level, resulting in the right circumstances for cultivating mushrooms in practically every home-grow situation. In the beginning people need to spray just a few times, after that the system is self-providing, so low maintenance and easy going as well. [See drawing 3 of "The patented system of MyChampi" \(day 7 of the manual\).](#)

Results of too low Humidity:

a) Dehydration of the casing soil, resulting in lesser output:

- Bacteria in the casing soil are of vital importance for the growth of mushrooms. Without these bacteria, no mushrooms will grow. When the casing soil dehydrates too much, the bacteria will have no media (water) left.
- The casing soil is also necessary for retaining a lot of water that the mushrooms use to grow. If the casing soil is dehydrated, there is not enough water left for the growth of healthy mushrooms and in worst case even no or practically no mushrooms will grow.
- The above mentioned also results in a faster general dehydration of the complete system (casing soil and compost), thus resulting in lesser runs and thus resulting again in lesser output or customer satisfaction/fun.

b) Lesser quality of the mushroom:

It takes a while for the mycelium to produce a mushroom, but ones they are there, they double in size every 24 hours. If the humidity is low, the outer skin of the mushroom dehydrates and is no longer capable of dealing with the fast growth. The result is an outer skin of the mushroom that tears, resulting in what we call scaly mushrooms.

Results of too low or too high CO₂:

a) Lesser output and/or lesser runs

b) Deformed mushrooms, such as mushrooms with longer stalks than usual

Results of too low or high temperatures:

The temperature is of influence, but of lesser importance than the other 2 components.

- a. In the first phase a temperature of 21°-22° Celsius is the most effective for a quick penetration of mycelium in the casing soil. Lower temperatures result in a slower penetration and from temperatures below 17° Celsius the mycelium is not vivand enough to penetrate the casing soil. (*see day 1, 2 and 5 of the manual*)
- b. In the second phase the temperature needs to drop to 17°-18° Celsius for an optimal growth. Higher temperatures may result in a quicker growth, resulting in longer stalks or lighter mushrooms (less crispy). Above 21° or 22° Celsius can cause lesser output. Lower temperatures result in a slower growth of mushrooms, but they will be heavy and crispy. Again temperatures below 16° Celsius can cause a partial or complete standstill, so less or practically no growth of mushrooms. (*see day 7 of the manual*)