

Claims

What is claimed is:

1. An apparatus for growing plants, comprising:
an irrigation apparatus;
an accommodating space for accommodating one or more seed mats;
a control unit which is configured to control the irrigation apparatus by a program controller; and
a door sensor for determining whether a door of the apparatus is open or closed;
wherein the irrigation apparatus comprises a water circuit system for feeding water to the seed mats, wherein the water circuit system comprises at least one inlet, a water tank, at least one water circuit pump and at least one outlet;
wherein the irrigation apparatus comprises a sensor which is configured to determine a conductance of the fed water;
wherein the control unit is configured to, when the door is open, actuate the irrigation apparatus such that no water is circulated by pumping in the water circuit system; and
wherein the control unit is configured to, when the door is closed, actuate the irrigation apparatus such that water from the water tank is circulated by pumping in the water circuit system.
2. The apparatus of claim 1,
wherein the sensor is furthermore configured to determine a water level in the water tank of the irrigation apparatus.

3. The apparatus of claim 1,
wherein the sensor is designed to contactlessly determine the conductance and the water level of the water.
4. The apparatus of claim 3,
wherein the sensor is a capacitive sensor.
5. The apparatus of claim 1,
wherein the control unit is configured to receive measured values from the sensor.
6. The apparatus of claim 1,
wherein the irrigation apparatus comprises one or more irrigation troughs, which are respectively arranged under the seed mats, and is configured to feed water from the water tank to the one or more irrigation troughs.
7. The apparatus of claim 1,
wherein the irrigation apparatus furthermore comprises:
 - at least one storage container for storing at least one of mineral fertilizer, or organic fertilizer, or acid, or base; and
 - at least one pump for feeding at least one of the mineral fertilizer, or the organic fertilizer, or the acid, or the base into the water circuit system.
8. The apparatus of claim 7,

wherein the pump is a peristaltic pump.

9. The apparatus of claim 1,
wherein the control unit is configured to regulate a nutrient content of the water on the basis of the conductance of the water.
10. The apparatus of claim 9,
wherein the control unit is configured to set a regulating variable for the nutrient content on the basis of at least one of the plants introduced into the accommodating space or of the state of said plants.
11. The apparatus of claim 1,
wherein the irrigation apparatus furthermore comprises an apparatus for purifying the water.
12. The apparatus of claim 11,
wherein the apparatus for purifying the water is configured to purify the water by irradiation with light in the UV-C range.
13. A method for growing plants, the method comprising:
introducing one or more seed mats into an accommodating space of an apparatus for growing plants;

actuating an irrigation apparatus by means of a program controller of a control unit,
wherein the irrigation unit comprises a water circuit system;
feeding water to the seed mats by means of the water circuit system, which comprises at
least one inlet, a water tank, at least one water circuit pump and at least one outlet;
determining, by means of a door sensor, whether a door of the apparatus is open or
closed;
when the door is open, actuate the irrigation apparatus such that no water is circulated by
pumping in the water circuit system, by means of the control unit;
when the door is closed, actuating the irrigation apparatus such that water from the water
tank is circulated by pumping in the water circuit system, by means of the control unit;
and
determining a conductance of the fed water by means of a sensor.

14. The method of claim 13, further comprising:
determining a water level in the water tank of the irrigation apparatus.
15. The method of claim 14,
wherein the conductance of the water and the water level in the water tank are determined
by the same sensor.
16. The method of claim 14,
wherein the conductance of the water and the water level in the water tank are determined
contactlessly.

17. The method of claim 16,
wherein the conductance of the water and the water level in the water tank are determined capacitively.
18. The method of claim 13, further comprising:
feeding measured values of the sensor to the control unit.
19. The method of claim 13, further comprising:
feeding at least one of mineral fertilizer, or organic fertilizer, or acid, or base to the water in the water circuit system by at least one pump.
20. The method of claim 13, further comprising:
purifying the water by an apparatus for purifying the water in the irrigation apparatus.