longitudinal sides. In this manner, a relatively large surface, for instance a vertical or oblique surface, can be provided with plant covering.

According to a first aspect of the present invention, there is provided a growth device for crop, comprising a panel-shaped structure, a substrate included in the panel-shaped structure for receiving crop, and at least one water reservoir included in the panel shaped structure, wherein the water reservoir extends substantially above a bottom side of the substrate in a vertical position of use of the growth device, the growth device further comprising connecting means to bring the water reservoir in communication with the substrate for moistening the substrate, wherein the connecting means comprise a bottom reservoir extending substantially under the substrate, and wherein the connecting means are further provided with a water flow regulator, such as for instance valve means, to regulate water flow from the water reservoir to the bottom reservoir substantially extending under the substrate, wherein an underside of the substrate facing the bottom of the growth device is in direct contact with water present during use in the bottom reservoir, such that this water can be sucked up into the substrate, and/or wherein the substrate is provided with water suction means, for instance one or more water suction cords or capillary means, which reach from the substrate into the bottom reservoir to draw water therefrom.

According to a second aspect of the present invention, there is provided

use of a growth device as disclosed herein, wherein the growth device is positioned obliquely or vertically, wherein the water reservoir is at least partly filled with water to provide planting present in the growth device with water.

According to a third aspect of the present invention, there is provided a panel-shaped structure of a growth device as disclosed herein, wherein the structure is provided with a first cavity for receiving said substrate, and at least a second cavity for the water reservoir, and with connecting means to bring the water reservoir into communication with a substrate that is included during use in the cavity for receiving the substrate, wherein the water reservoir extends substantially above a bottom side of a substrate included in the structure during use, in a vertical position of use of the growth device, wherein the connecting means comprise a bottom reservoir extending substantially under the substrate, and wherein the connecting means are further provided with a water flow regulator, such as for instance valve means, to regulate water flow from the water reservoir to the bottom reservoir extending substantially under the substrate.

Finally, the invention relates to a separate cassette for a growth device, the cassette comprising a plant receiving part, provided with openings for taking up/receiving crop and preferably of a substantially rigid material, and a rear part, while between the plant receiving part and the rear part at least one capillary cloth is provided. This cassette provides advantages and effects equal to those already described above for the growth device provided with a cassette. Further, the cassette, owing to the simple construction thereof, can be easily manufactured and easily provided with crops. In addition, the cassette, since only a capillary cloth is needed for watering and feeding the roots of the crops, can be of relatively thin design. This is beneficial to the appearance of the growth device, for instance when it is placed on a wall. Owing to the limited number of parts, the weight of the cassette will be relatively low both with and without crops. As the rear part is provided in a manner linking up with the plant receiving

part, for instance by snap-fitting the rear part in a circumferential edge of the plant receiving part, a compact cassette is obtained.

In a further elaboration of the cassette, between the plant receiving part and the capillary cloth a plant growth layer can be provided. The plant growth layer can for instance be a rock wool or another medium for buffering water and/or nutrients. Possibly, also a strengthening layer may be provided which presses the capillary cloth, or the capillary cloth and the plant growth layer, against the rear part.

In a further embodiment of the cassette, the rear part can be provided with an elongated opening near a first circumferential side of the rear part, with the opening running substantially parallel to the circumferential side of the rear part, while the capillary cloth, at least partly, is passed through the opening.

CLAIMS

1. A growth device (K, K', K", K'") for crop, comprising a panel-shaped structure (1), a substrate (2) included in the panel-shaped structure (1) for receiving crop (3), and at least one water reservoir (4) included in the panel-shaped structure (1), wherein the water reservoir (4) extends substantially above a bottom side (B) of the substrate (2) in a vertical position of use of the growth device, the growth device (K, K', K", K'") further comprising connecting means (6) to bring the water reservoir in communication with the substrate (2) for moistening the substrate (2), wherein the connecting means (6) comprise a bottom reservoir (6a) extending substantially under the substrate (2), and wherein the connecting means (6) are further provided with a water flow regulator, such as for instance valve means, to regulate water flow from the water reservoir (4) to the bottom reservoir (6a) substantially extending under the substrate (2),

wherein an underside of the substrate (2) facing the bottom (1c) of the growth device (K, K', K", K'") is in direct contact with water present during use in the bottom reservoir (6a), such that this water can be sucked up into the substrate (2), and/or wherein the substrate (2) is provided with water suction means, for instance one or more water suction cords or capillary means, which reach from the substrate (2) into the bottom reservoir (6a) to draw water therefrom.

2. A growth device according to claim 1, wherein the flow regulator (6b) is designed to work autonomously, in particular under the influence of gravity, without supply of electrical energy.

3. A growth device according to claim 1 or 2, wherein the flow regulator (6b) comprises valve means (6c, 6e), for instance a regulating valve (6c) for closing off a water passage (6d) in a closed position and releasing it in a release position, while the position of the regulating valve (6c) is controllable under the influence of a float (6e) located in the bottom

reservoir (6a) and coupled to the valve (6c), for instance via an operating arm.

4. A growth device according to any one of the preceding claims, wherein the panel-shaped structure is provided with a framework surrounding the substrate and the water reservoir.

5. A growth device according to any one of the preceding claims, wherein the panel-shaped structure is provided with support means extending behind the substrate, for instance, a rear wall or partition wall.

6. A growth device according to any one of the preceding claims, wherein the substrate (2) is of panel-shaped design.

7. A growth device according to any one of the preceding claims, wherein a height of the water reservoir (4) is at least equal to half a height of the substrate (2).

8. A growth device according to any one of the preceding claims, wherein the water reservoir (4) extends at least partly or partly above a top (T) of the substrate in a vertical position of use of the growth device.

9. A growth device according to any one of the preceding claims, wherein the substrate (2) is designed as a cassette (22, 22'), wherein the cassette is removably included in a receiving opening (20) in the panel-shaped structure (1).

10. A growth device according to claim 9, wherein the cassette comprises a plant receiving part (26), for instance of a substantially rigid material, a rear part (28), and wherein between the plant receiving part and the rear part, at least one capillary cloth (24) is provided.

11. A growth device according to claim 10, wherein between the plant receiving part and the capillary cloth a plant growth layer (32) and/or a strengthening layer (30) is provided.

12. A growth device according to any one of claims 10-11, wherein on a first circumferential side (22a') of the cassette (22') between the rear part (28) and the plant receiving part (26) an elongated opening (25) is provided,

wherein the capillary cloth (24) is at least partly passed through the elongated opening (25).

13. A growth device according to any one of claims 10-11, wherein the rear part (28) is provided with an elongated opening (25) near a first circumferential side (28a) of the rear part, wherein the elongated opening (25) runs substantially parallel to the first circumferential side (28a) of the rear part, wherein the capillary cloth (24) is, at least partly, passed through the elongated opening (25).

14. A growth device according to claim 12 or 13, wherein the cassette (22) is included in the panel-shaped structure such that the elongated opening (25) extends at a short distance substantially parallel to the bottom reservoir (6), wherein the capillary cloth (24) extends at least partly in the bottom reservoir.

15. A growth device according to any one of claims 9-13, wherein the receiving opening has a capillary rear wall (34), for instance formed by a second capillary cloth, said rear wall extending on the rear side of the receiving opening.

16. A growth device according to claim 15 as far as dependent on claim 7, wherein the capillary rear wall (34) extends at least partly into the part of the water reservoir (4b) that is located above a top of the cassette.

17. A growth device according to claim 15 or 16, as far as dependent on claim 13, wherein the cassette (22) is included in the panel-shaped structure such that the elongated opening (25) extends at a short distance substantially parallel to the water reservoir at the top, wherein the capillary cloth is folded back and extends along an outer surface side (28a) of the rear part (28) of the cassette and abuts against the capillary rear wall (34) such that there is a fluid communication between the capillary rear wall and the capillary cloth, at least, the part (24a) folded back along the rear part (28).

18. A growth device according to any one of the preceding claims, wherein the substrate is provided with a number of mutually spaced apart

openings, each having, for instance, a width of at least 3 cm, for receiving crop.

19. A growth device according to any one of the preceding claims, provided with an aerator to aerate the water reservoir (4).

20. A growth device according to claim 19 in combination with at least claim 2, wherein the aerator is provided with an upstream air inlet, which may be located in a said bottom reservoir to receive air therefrom when the water level in the bottom reservoir reaches a threshold value.

21. A growth device according to any one of the preceding claims, wherein the panel-shaped structure comprises a number of substrates or cassettes which are detachably provided in the structure.

22. Use of a growth device (K, K', K", K"') according to any one of claims 1-21, wherein the growth device (K, K', K", K"') is positioned obliquely or vertically, wherein the water reservoir (4) is at least partly filled with water to provide planting present in the growth device with water.

23. A panel-shaped structure (1) of a growth device (K, K', K", K"') according to any one of claims 1-21, wherein the structure (1) is provided with a first cavity for receiving said substrate, and at least a second cavity for the water reservoir (4), and with connecting means (6) to bring the water reservoir (4) into communication with a substrate that is included during use in the cavity for receiving the substrate, wherein the water reservoir (4) extends substantially above a bottom side of a substrate (2) included in the structure (1) during use, in a vertical position of use of the growth device, wherein the connecting means (6) comprise a bottom reservoir (6a) extending substantially under the substrate (2), and wherein the connecting means (6) are further provided with a water flow regulator, such as for instance valve means, to regulate water flow from the water reservoir (4) to the bottom reservoir (6a) extending substantially under the substrate (2).