CLAIMS

1. A high-rise building (1) for cultivating crops in trays and ~~having~~ comprising a building structure (2) with floor structures (3), said high-rise building further comprising at least one conveying system for moving the trays, **characterized in** that at least one of the at least one conveying system (7, 7´, 7´´) comprises

a plurality of essentially horizontal track portions (14) each having a length axis (15), wherein the track portions (14) are attached to the floor structures (3) of the building structure (2), the track portions extending in parallel to each other and being arranged above each other in a vertical plane,

conveying means for movement of trays (8) having a respective length axis along the length axis (15) of the track portions (14) with the length axis of each tray being substantially perpendicular to the length axis of the track portions,

track connecting means (18) which connects one track portion (14) with another track portion (14) located one or more levels below, for transportation at least partly by gravity of the trays (8) along a length axis (19) of the track connecting means (18), with the length axis of each tray in parallel with the length axis of the track connection means.

2. The high-rise building (1) according to claim 1, characterized in that the high-rise building (1) further comprises ~~a building structure (2) with floor structures (3),~~ a double-skin façade comprising a first skin (5) and a second skin (6) and at least one conveying system (7, 7´, 7´´) arranged between the skins (5, 6) of the double-skin façade

and arranged for moving trays (8) vertically between the skins (5, 6) between a starting position (9, 9´, 9´´) and an end position (10, 10´, 10´´).

3. The high-rise building (1) according to any one of the preceding claims, wherein the conveying means comprises a conveying device (28) which is arranged to travel along at least one track portion (14) and comprises a tray moving unit (29) which after passing a tray (8) is arranged to move at least one tray (8) one step along the track portion (14), the conveying device (28) thus moving trays (8) stepwise along the track portions (14) during the travel along the track portions (14).

4. The high-rise building (1) according to any one of the preceding claims, characterized in that each track portion (14) includes a straight path with a straight length axis and at least one curved part with a curved length axis, in which said curved length axis has a change of direction of about 90°, and where a first end of the curved part adjoins said straight part, and a second end of the curved part is connected to said track connection means (18).

5. The high-rise building (1) according to any one of the preceding claims, ~~comprising~~ wherein said track connecting means (18) are arranged as inclining straight paths defining said length axis (19) of the connection means, wherein the paths are arranged for transportation of trays (8).

6. The high-rise building (1) according to any of the preceding claims, wherein each one of the track portions (14) comprises a first beam (26) and a second beam (27), wherein the first beam (26) is arranged to support a first end of the tray (8) being closest to the building (1), and wherein the second beam (27) of each track portion (14) is arranged to

support the opposite end of the tray (8) at a position remote from said first end.

7. The high-rise building (1) according to any of the preceding claims, comprising watering means to intermittently provide water to the trays (8) on the track portions (14), wherein the watering means comprises water outlets (20).

8. The high-rise building (1) according to claim 7, wherein the water outlets (20) are arranged at a distance corresponding to the intended pitch (22) between the trays (8).

9. The high-rise building (1) according to claim 7 or 8 as dependent on claim 6~~any of the preceding claims~~, wherein the track portions (14) are arranged so that the trays (8) incline at an angle of 0,5-2 degrees when they are arranged on the track portions (14) and wherein the water outlets (20) are arranged at the beam (26) arranged at the higher level, and wherein a water return system is arranged to collect residual water from the trays (8) at the lower side of the track portions.

10. The high-rise building (1) according to any one of the preceding claims, comprising at least two conveying systems (7, 7′, 7′′)arranged on top of each other, so that the at least two start positions (9, 9′, 9′′) and two end positions (10, 10′, 10′′) are provided providing for the simultaneous growth of two different plant varieties.

11. The high-rise building (1) according to claim 2 or anyone of the ~~preceding~~ claims 3-10 as dependent on claim 2, having an outlet for exhaust air from the high-rise building which is connected to an air inlet of the double-skin façade via an air filter (11), for allowing carbon dioxide and excess heat from