CLAIMS

1. An automatic slot-type planting system for organic fruit vegetables, comprising:

an intelligent greenhouse (1);

a sieving and disinfection batching system (2);

an input and output material storage (3); and

a mobile ontrack hopper car (4),

wherein the sieving and disinfection batching system (2) and the input and output material storage (3) are arranged outside of the intelligent greenhouse (1);

wherein the input and output material storage (3) exchanges planting materials with a planting slot system (5) inside the intelligent greenhouse (1) by using the mobile ontrack hopper car (4);

wherein the intelligent greenhouse (1) is enclosed, in which the planting slot system (5), a track system (6), a mobile canopy frame system (7), a spraying and disinfecting system (8), a temperature and humidity monitoring system, and a precooling and packaging system (9) are arranged;

wherein the planting slot system (5) comprises multiple parallelly arranged planting slots (51);

wherein the mobile canopy frame system (7) and the spraying and disinfecting system (8) are arranged over the planting slots (51);

wherein the temperature and humidity monitoring system is attached to the planting slot system (5); and

wherein the precooling and packaging system (9) is arranged at one end of the intelligent greenhouse (1), and comprises a precooling system used for precooling the harvested fruit vegetables and a packaging system used for packaging the fruit vegetables.

2. The automatic slot-type planting system for organic fruit vegetables according to claim 1,

wherein the sieving and disinfection batching system (2) comprises a used material storage (21), an elevator (22), a sieving machine (23), a refuse

material storage (24), a fresh material storage (25), a stirring and batching machine (26), and a disinfection system (27);

wherein used planting materials from the used material storage (21) are transported into the sieving machine (23) by the elevator (22);

wherein after sieving, reusable fine particles are transported into the stirring and batching machine (26), while unusable used planting materials are transported into the refuse material storage (24);

wherein fresh planting materials are fed from the fresh material storage (25) into the stirring and batching machine (26) according to a formula and are mixed with the used planting materials in the stirring and batching machine (26), so as to obtain qualified planting materials according to the formula;

wherein the obtained qualified planting materials are transported into the disinfection system (27) to be disinfected and then sent into the input and output material storage (3).

3. The automatic slot-type planting system for organic fruit vegetables according to claim 2, wherein the disinfection system (27) is a double disinfection system comprising a neutron generator and a high-temperature steam generator.

4. The automatic slot-type planting system for organic fruit vegetables according to any one of claims 1 to 3,

wherein the mobile ontrack hopper car (4) comprises a hopper (41), a vacuum and negative pressure transporter (42), supporting legs (43), and walking wheels (44);

wherein the hopper (41) is arranged on the supporting legs (43);

wherein a feed port (411) is arranged on a top of the hopper (41);

wherein a discharge port (412) is arranged on a bottom of the hopper (41);

wherein the vacuum and negative pressure transporter (42) is arranged on the hopper (41); and

wherein the walking wheels (44) are arranged on bottoms of the supporting legs (43).

5. The automatic slot-type planting system for organic fruit vegetables according to any one of claims 1 to 4,

wherein the mobile canopy frame system (7) comprises a net canopy frame; and

wherein the net canopy frame comprises a fixed part (71) and a movable part (72) which are connected by a hinge (73).

6. The automatic slot-type planting system for organic fruit vegetables according to any one of claims 1 to 5,

wherein the spraying and disinfecting system (8) comprises piping supports (81), a spray pipeline (82), spray nozzles (83), a disinfection pipeline (84), and disinfection nozzles (85);

wherein the spray pipeline (82) and the disinfection pipeline (84) are parallelly set up on the piping supports (81);

wherein the spray nozzles (83) connect with the spray pipeline (82); and

wherein the disinfection nozzles (85) connect with the disinfection pipeline (84).