Claims

1. An apparatus for use in indoor agriculture, the apparatus comprising a plurality of elongate supports connected to at least one common manifold, each elongate support within the plurality of elongate supports comprising:

a main body having a first side and comprising a metallic material;

at least one inlet in fluid communication with the at least one common manifold;

a plurality of outlets;

a plurality of LEDs or LED clusters located on the first side of the main body of each elongate support in the plurality of elongate supports in direct contact with the main body; and

a channel within and extending along substantially the length of the main body between the at least one inlet and the plurality of outlets,

the at least one common manifold configured to allow gas to flow into the at least one inlets of the plurality of elongate supports

wherein the apparatus is configured such that during use, gas may flow from the common manifold to the at least one inlet of each elongate support within the plurality of elongate supports, through the channel of each elongate support and out of the plurality of outlets of each elongate support, such that a uniform flow of gas is provided adjacent the first side of the main body during use.

2. The apparatus of claim 1, wherein the cross-sectional area of the channel of the main body is significantly larger than that of each outlet of the plurality of outlets.

3. The apparatus of any one preceding claim, wherein the or at least one of the at least one common manifolds comprises an inlet.

4. The apparatus of claim 3, wherein the inlet of the or one of the at least one common manifolds is associated with a control valve.

5. The apparatus of any one preceding claim, wherein the main body comprises aluminium.

6. The apparatus of any one preceding claim, wherein the outlets of the plurality of outlets are spaced regularly along the length of the main body.

7. The apparatus of any one preceding claim, wherein the LEDs of the plurality of LEDs are spaced regularly along the length of the main body.

8. The apparatus of any one preceding claim, wherein the main body is tubular.

9. The apparatus of claim 8, wherein the cross-section of the main body is substantially circular, elliptical or rectangular.

10. The apparatus of any one preceding claim, wherein the plurality of outlets ~~are~~ is configured to provide ~~an optimal~~ flow rate of gas of 100 m^3/hr, 150 m^3/hr, 200 m^3/hr, 250 m^3/hr, 300 m^3/hr, or 350 m^3/hr.

11. The apparatus of any one preceding claim, wherein, during use, transfer of at least a portion of the heat generated by the plurality of LEDs or LED clusters to the main body cools the plurality of LEDs or LED clusters.

12. A system comprising a plurality of growth trays, wherein the underside of each growth tray accommodates an apparatus according to any one preceding claim, and wherein gas flowing from the plurality of outlets of the apparatus of a first growth tray in the plurality of growth trays is directed to a second growth tray beneath it in the stack.

13. The system of claim 12, wherein light emitted from the plurality of LEDs or LED clusters of the apparatus of a first growth tray in the plurality of growth trays is directed to a second growth tray beneath it in the stack.

14. The system of claims 12 or 13, wherein the inlet of the or each common manifold of each growth tray is connected to a pump such that during use a gas is pumped from the pump to the plurality of outlets of the apparatus via the inlet of the or each common manifold.

15. The system of claim 14, wherein the pump is part of an air conditioning unit that is configured to adjust the temperature and/or humidity and/or composition of the gas that is pumped through the or each apparatus during use.

16. A system for growth comprising apparatus according to any one of claims 1 to 11, wherein the plurality of elongate supports is arranged in an array of columns and rows, wherein the elongate supports of a given row and/or column are connected to at least

one common manifold, and the rows of elongate supports are arranged in a stack one above the other.

17. The system of claim 16, wherein the system is configured such that a frame comprising growth trays may be moved into the system such that a growth tray is located beneath a row of elongate supports.

18. Use of the system according to any one of claims 12 to 17 for growth of plants.

19. Use of the system according to any one of claims 12 to 17 for growth of fungi.