CLAIMS

1. A growing system comprising:

a first set of substantially parallel rails or tracks and a second set of substantially parallel rails or tracks extending transverse to the first set in a substantially horizontal plane to form a grid pattern comprising a plurality of grid spaces;

a plurality of storage containers ~~10~~ arranged in stacks ~~12~~, located beneath the grid spaces; and,

at least one load handling device ~~30~~ disposed on the grid, arranged to move laterally above the stacks ~~12~~ on the rails, the load handling device ~~30~~ comprising a lifting device arranged to lift at least one container ~~10~~, or part thereof, from a stack ~~12~~;

wherein at least one container comprises a fluid supply means to provide water and/or nutrients to living organisms contained within the at least one container~~in which a number of the containers 10 comprise service means suitable for cultivation, controlling or maintaining living organisms~~.

2. A system according to claim 1, wherein some or all of the containers comprise lighting means ~~60~~.

3. A system according to claim 2, wherein the lighting means comprises light emitting means emitting light of a wavelength or range of wavelengths suitable for the cultivation, control or maintenance of living organisms.

4. A system according to any preceding claim, wherein the living organisms comprise growing crops or organisms under research and development.

5. A system according to claim 4, wherein a proportion of the containers comprise growing crops.

6. A system according to claim 4, wherein a proportion of the containers comprise organisms under research and development.

7. A system according to any preceding claim, wherein some or all of the containers comprise power supply means ~~42~~.

8. A system according to any preceding claim, wherein some or all of the containers comprise power control means ~~43~~.

9. A system according to any preceding claim, wherein some or all of the containers comprise sensor means and data logging means ~~44~~ for monitoring the output of the sensor means.

10. A system according to any preceding claim, wherein some or all the containers ~~10~~ comprise communication means ~~46~~ for communicating with adjacent containers ~~10~~ or with a central communications manager.

11. A system according to any preceding claim, wherein some or all of the containers ~~10~~ comprise heating means ~~47~~ for heating the contents of the containers ~~10~~.

12. A system according to any preceding claim, wherein some or all of the containers ~~10~~ comprise cooling means ~~48~~ for cooling the contents of the containers.

13. A system according to any preceding claim, wherein some or all of the containers ~~10~~ comprise a reservoir ~~54~~, the reservoir ~~54~~ acting as a fluid sink in the container ~~10~~.

14. A system according to any preceding claim, wherein some or all of the containers comprise lighting means ~~60~~, the length of time the lighting means is operable being controllable and variable.

~~15. A method of growing organisms within a growing system according to any preceding claim comprising the steps of:~~

~~a. providing growing means within a storage container~~ 10~~;~~

~~b. positioning the container~~ 10 ~~within a storage system;~~

~~c. providing required light, water and nutrients;~~

~~d. removing containers~~ 10 ~~during the growing cycle to re-space or harvest accordingly; and~~

~~e. moving the containers~~ 10 ~~using at least one robotic load handling device~~ 30 ~~operable on a grid system above the containers~~ 10~~.~~

~~16. A method according to claim 15, comprising the further steps of:~~

~~a. providing sensor means and data logging 44 and storage means within a storage container 10;~~

b. providing communication means 44 to communicate data logged to a central data logging device;

c. monitoring the data received;

d. removing containers 10 during the growing cycle of the organism within a container 10 to provide water and nutrients as necessary.

17. A method of growing plants according to claim 15, comprising the further steps of:

e. providing means for controlling the temperature within the container 10;

f. providing means for monitoring the temperature within the container 10;

18. A method of growing plants according to any one of claims 15 to 17, comprising the further step of providing lighting means 60 within each container 10, the lighting means 60 emitting light of a predetermined wavelength suitable for the plant being grown in the container 10.

19. A method of growing plants according to claim 18, further comprising the step of varying the length of time the lighting means 60 is operable, to simulate an appropriate day length for the plant in the container 10.