

CLAIMS:

1. An aeroponic system, comprising:
an aeroponic growth chamber,
a cloth or fabric positioned within the aeroponic growth chamber, the cloth or fabric exhibiting (i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from 0.10 g/cm² to 0.29 g/cm².
2. The aeroponic system of claim 1, wherein the wicking height parameter is a measurement of an ability of the cloth or fabric to absorb moisture.
3. The aeroponic system of claim 1, wherein the absorbance parameter is a measurement of moisture the cloth or fabric retains.
4. The aeroponic system of claim 1, wherein the cloth or fabric facilitates root penetration.
5. The aeroponic system of claim 1, wherein the cloth or fabric provides a substantial barrier to nutrient solution spray.
6. The aeroponic system of claim 1, further comprising at least one of cloth or fabric support elements, a light source and a nutrient solution source.
7. The aeroponic system of claim 1, wherein the cloth or fabric is selected from a group consisting of a polyester material, an acrylic material, and a non-biodegradable synthetic material.
8. The aeroponic system of claim 1, wherein the aeroponic system satisfies a plurality of germination parameters that include at least one of a temperature range, a pH level range, a relative humidity range, a light intensity range, a light spectrum, an electrical conductivity range, and a carbon dioxide level range.
9. The aeroponic system of claim 8, wherein the temperature range is from 5 °C to 35 °C.
10. The aeroponic system of claim 8, wherein the pH level range is from 4 to 8.
11. The aeroponic system of claim 8, wherein the relative humidity range is from 20% to 100%.

12. The aeroponic system of claim 8, wherein the light intensity range is from $0 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ to $250 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$.
13. The aeroponic system of claim 8, wherein the light spectrum is from 400 nm to 700 nm.
14. The aeroponic system of claim 8, wherein the electrical conductivity range is from $1.5 \text{ dS}\cdot\text{m}^{-1}$ to $3.0 \text{ dS}\cdot\text{m}^{-1}$.
15. The aeroponic system of claim 1, wherein the cloth or fabric is configured and dimensioned to support seeds thereon.
16. The aeroponic system of claim 1, wherein the cloth or fabric inhibits puddling of a nutrient solution on the cloth or fabric.
17. A method of aeroponic farming, comprising:
 - providing an aeroponic system that includes a growth chamber,
 - supporting a cloth or fabric within the growth chamber, the cloth or fabric exhibiting (i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from $0.10 \text{ g}/\text{cm}^2$ to $0.29 \text{ g}/\text{cm}^2$.
18. The method of aeroponic farming of claim 17, further comprising depositing seeds on the cloth or fabric.
19. The method of aeroponic farming of claim 17, further comprising spraying a nutrient solution on at least one surface of the cloth or fabric.
20. A system for farming, comprising:
 - a growth chamber,
 - a cloth or fabric positioned within the growth chamber, the cloth or fabric exhibiting (i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from $0.10 \text{ g}/\text{cm}^2$ to $0.29 \text{ g}/\text{cm}^2$.
21. The system of claim 20, wherein the wicking height parameter is a measurement of an ability of the cloth or fabric to absorb moisture.

22. The system of claim 20, wherein the absorbance parameter is a measurement of moisture the cloth or fabric retains.
23. The system of claim 20, wherein the cloth or fabric facilitates root penetration.
24. The aeroponic system of claim 20, wherein the cloth or fabric provides controlled access to moisture.
25. The system of claim 20, further comprising at least one of cloth or fabric support elements, a light source and a nutrient solution source.
26. The system of claim 20, wherein the cloth or fabric is selected from a group consisting of a polyester material, an acrylic material, and a non-biodegradable synthetic material.
27. The system of claim 20, wherein the system satisfies a plurality of germination parameters that include at least one of a temperature range, a pH level range, a relative humidity range, a light intensity range, a light spectrum, an electrical conductivity range, and a carbon dioxide level range.
28. The system of claim 27, wherein the temperature range is from 5 °C to 35 °C.
29. The system of claim 27, wherein the pH level range is from 4 to 8.
30. The system of claim 27, wherein the relative humidity range is from 20% to 100%.
31. The system of claim 27, wherein the light intensity range is from 0 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ to 250 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$.
32. The system of claim 27, wherein the light spectrum is from 400 nm to 700 nm.
33. The system of claim 27, wherein the electrical conductivity range is from 1.5 $\text{dS}\cdot\text{m}^{-1}$ to 3.0 $\text{dS}\cdot\text{m}^{-1}$.
34. The system of claim 20, wherein the cloth or fabric is configured and dimensioned to support seeds and plants thereon.
35. The system of claim 20, wherein the cloth or fabric inhibits puddling of a nutrient solution on the cloth or fabric.

36. A method of farming, comprising:
providing a system for farming that includes a growth chamber,
supporting a cloth or fabric within the growth chamber, the cloth or fabric exhibiting
(i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from 0.10 g/cm² to 0.29 g/cm².
37. The method of farming of claim 36, further comprising depositing seeds on the cloth or fabric.
38. The method of farming of claim 36, further comprising germinating seeds by at least one of (i) spraying a nutrient solution on at least one surface of the cloth or fabric and (ii) submerging the cloth or fabric into the nutrient solution.
39. The method of farming of claim 38, further comprising supporting plant growth on the cloth or fabric by spraying the nutrient solution on at least one surface of the cloth or fabric.

CLAIMS:

1. An aeroponic system, comprising:
 - an aeroponic growth chamber,
 - a cloth or fabric positioned within the aeroponic growth chamber, the cloth or fabric exhibiting (i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from 0.10 g/cm^2 to 0.29 g/cm^2 ;
 - wherein the wicking height parameter is a measurement of an ability of the cloth or fabric to absorb moisture and wherein the absorbance parameter is a measurement of moisture the cloth or fabric retains.
2. The aeroponic system of claim 1, wherein the cloth or fabric facilitates root penetration.
3. The aeroponic system of claim 1, wherein the cloth or fabric provides a substantial barrier to nutrient solution spray.
4. The aeroponic system of claim 1, further comprising (i) cloth or fabric support elements, (ii) a light source, and (iii) a nutrient solution source.
5. The aeroponic system of claim 1, wherein the cloth or fabric is selected from a group consisting of a polyester material, an acrylic material, and a non-biodegradable synthetic material.
6. The aeroponic system of claim 1, wherein the aeroponic growth chamber operates (i) in a temperature range is from 5°C to 35°C , (ii) at a pH between 4 and 8, (iii) in a relative humidity range of from 20% to 100%, and (iv) at a light intensity range of from $0 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ to $250 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$.

7. The aeroponic system of claim 1, wherein the cloth or fabric inhibits puddling of a nutrient solution on the cloth or fabric.
8. A method of aeroponic farming, comprising:
 - providing an aeroponic system that includes a growth chamber,
 - selecting a cloth or fabric for positioning within the growth chamber, the cloth or fabric exhibiting (i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from 0.10 g/cm² to 0.29 g/cm²,
 - supporting the selected cloth or fabric within the growth chamber; and
 - depositing seeds on the selected cloth or fabric that is supported within the growth chamber.
9. The method of aeroponic farming of claim 8, further comprising spraying a nutrient solution on at least one surface of the cloth or fabric.
10. The method of aeroponic farming of claim 8, further comprising germinating seeds by at least one of (i) spraying a nutrient solution on at least one surface of the cloth or fabric and (ii) submerging the cloth or fabric into the nutrient solution.
11. The method of aeroponic farming of claim 8, further comprising supporting plant growth on the cloth or fabric by spraying the nutrient solution on at least one surface of the cloth or fabric.
12. A system for farming, comprising:
 - a growth chamber,
 - a cloth or fabric positioned within the growth chamber, the cloth or fabric exhibiting (i) a wicking height parameter characterized by a wicking height range from 1.1 cm to 4.5 cm, and (ii) an absorbance parameter characterized by an absorbance range from 0.10 g/cm² to 0.29 g/cm²;

wherein the wicking height parameter is a measurement of an ability of the cloth or fabric to absorb moisture and wherein the absorbance parameter is a measurement of moisture the cloth or fabric retains.

13. The system of claim 12, wherein the cloth or fabric facilitates root penetration.
14. The system of claim 12, wherein the cloth or fabric provides controlled access to moisture.
15. The system of claim 12, further comprising (i) cloth or fabric support elements, (ii) a light source, and (iii) a nutrient solution source.