

WHAT IS CLAIMED IS:

1. A method of irrigation, the method comprising supplying water to an inclined irrigation pipe provided with a plurality of drippers, wherein said supplying is such that a pressure at a highest level of said inclined irrigation pipe is at most 90 cm H₂O.

2. A method of irrigation, the method comprising supplying water to an inclined irrigation pipe provided with a plurality of drippers, wherein said irrigation pipe is inclined at a varying slope and wherein said supplying is selected to provide a predetermined pressure at a highest level of said inclined irrigation pipe, said predetermined pressure and said varying slope being selected such that a discharge rate along a length of said inclined irrigation pipe varies by no more than 20%.

3. A method of deploying an irrigation pipe, the method comprising:
operating a shoveling tool to form a varying slope in a soil;
deploying, generally along said varying slope, an inclined irrigation pipe having a plurality of drippers;
wherein a variation in said varying slope is selected such that when said irrigation pipe is fed with water at a predetermined pressure, a water discharge along a length of said inclined irrigation pipe varies by no more than 20%.

4. The method according to any of claims 2 and 3, wherein the water pressure is from about 5 cm H₂O to about 90 cm H₂O at a highest level of said inclined irrigation pipe.

5. The method according to any of claims 1-4, wherein the supplying water is by a water distribution conduit.

6. The method according to any of claims 1-5, wherein at least one of said plurality of drippers is characterized by a pressure-discharge dependence which

comprises a linear relation between a discharge rate at an outlet of said dripper and an inlet pressure at an inlet of said dripper.

7. The method according to claim 6, wherein said linear relation is characterized by a coefficient of said inlet pressure which is from about 7 cubic centimeters per hour per cm H₂O to about 40 cubic centimeters per hour per cm H₂O.

8. The method according to claim 7, wherein said coefficient is from about 7 cubic centimeters per hour per cm H₂O to about 20 cubic centimeters per hour per cm H₂O.

9. The method according to claim 8, wherein said coefficient is from about 9 cubic centimeters per hour per cm H₂O to about 12 cubic centimeters per hour per cm H₂O.

10. The method according to any of claims 6-9, wherein said linear relation is characterized by an offset parameter from about 0 to about 50 cubic centimeters per hour.

11. The method according to claim 10, wherein said offset parameter first coefficient is from about 10 cubic centimeters per hour to about 40 cubic centimeters per hour.

12. The method according to claim 11, wherein said offset parameter is from about 20 cubic centimeters per hour to about 30 cubic centimeters per hour.

13. The method according to any of claims 1-12, wherein a number of drippers per meter length of said inclined irrigation pipe is from about 1 to about 5.

14. The method according to any of claims 1-13, wherein for at least one pair of drippers in said pipe, a ratio between a value of said slope at a location of a first dripper of said pair and a value of said slope at a location of a second dripper of said pair, is equal or approximately equal to an n th power of a ratio between distances of a lowermost point of said pipe from said first and said second drippers of said pair, wherein said n is from about 1.5 to about 4.5.

15. An irrigation system, comprising:
an inclined irrigation pipe having a plurality of drippers configured to discharge water;
a water supply system configured to deliver water to said inclined irrigation pipe at a highest level of said inclined irrigation pipe at a pressure of at most about 90 cm H₂O.

16. An irrigation system, comprising:
an inclined irrigation pipe having a plurality of drippers configured to discharge water;
a water supply system configured to deliver water to said inclined irrigation pipe at a highest level of said inclined irrigation pipe;
wherein said irrigation pipe is inclined at a varying slope selected such that a water pressure along a length of said inclined irrigation pipe varies by no more than about 20%.

17. The irrigation system according to claim 15 or 16, further comprising a water distribution conduit.

18. The irrigation system according to any of claims 15-17, wherein said water supply system comprises at least one of: a water reservoir, a water tank and a pump.

19. A water irrigation dripper, comprising:

an external hollow element having at least one water inlet configured to intake water and at least one water outlet configured to discharge water from the dripper; and

an internal element placed inside said external hollow element to form a water pathway in a space therebetween.

20. The water irrigation dripper according to claim 19, wherein a length of said water pathway is from about 0.5 cm to about 10 cm.

21. The water irrigation dripper according to claim 20, wherein the length of said water pathway is from about 2 cm to about 5 cm.

22. The water irrigation dripper according to any of claims 19-21, wherein a diameter of said internal element is from about 0.25 mm to about 5 mm.

23. The water irrigation dripper according to claim 22, wherein the diameter of said internal element is from about 0.75 mm to about 2.5 mm.

24. The water irrigation dripper according to any of claims 19 to 23, wherein a hydraulic diameter of said water pathway is from about 0.01 mm to about 5 mm.

25. The water irrigation dripper according to claim 24, wherein a hydraulic diameter of said water pathway is from about 0.01 mm to about 1 mm.

26. The water irrigation dripper according to any of claims 19-25, wherein there is a plurality of water inlets at a density of from about 1 to about 10 per square centimeter.

27. The water irrigation dripper according to any of claims 19-26, wherein said water pathway at least partially surrounds said internal element.

28. The water irrigation dripper according to any of claims 19-27, wherein said water inlet has a generally elliptic shape.

29. The water irrigation dripper according to claim 28, wherein said water inlet is generally perpendicular to an outer surface of said external hollow element.

30. The water irrigation dripper according to claim 28 or 29, further comprising a water filter at said at least one water inlet.

31. The water irrigation dripper according to any of claims 28-30, comprising at least one additional water inlet, oriented diagonally with respect to a normal to an outer surface of said external hollow element.

32. An irrigation system comprising:
a water supply source; and
an irrigation pipe having a plurality of drippers configured to discharge water and being connected to said water supply source;
wherein at least one of said drippers is the dripper according to any of claims 19-31.