Claims

1. A method of increasing an abiotic environmental stress tolerance, reducing a damage caused by an abiotic stress and/or improving a quality and/or yield and/or vigour of a cultivated plant, comprising the application of 1-methylcyclopropene in the rate of 0.1 to 50 g per hectare to the cultivated plant in a plant irrigation water by chemigation, wherein the concentration of 1-methylcyclopropene in the irrigation water is 50 to 500 ppm.

2. A method according to claim 1, which includes the simultaneous and/or sequential application of one or more further agrochemical compounds and/or plant nutrients and/or plant fertilizers.

3. A method according to claim 2, wherein the further agrochemical compound is a pesticide, such as a fungicide, herbicide, insecticide, bactericide, acaricide or nematicide.

4. A method according to any one of claims 1 to 3, wherein the abiotic stress is drought, flood, excessive temperature, low temperature, frost, excess sunlight, insufficient sunlight, wind, inadequate soil nutrients, excessive soil salinity, air pollution, soil pollution or water pollution, or any combination thereof.

5. A method according to any one of claims 1 to 3, wherein the stress is drought, flood or excessive temperature.

6. A method according to any one of claims 1 to 5, wherein the irrigation is localized irrigation, spray irrigation, drip irrigation, bubbler irrigation, micro-sprinkler irrigation, subirrigation, seepage irrigation, surface irrigation, or manual irrigation, or any combination thereof.

7. A method according to any one of claims 1 to 6, wherein the plants are crops selected from soybean, maize, cotton, vegetables, banana, jatropha, ornamentals, and wheat.