Aquatrols®

RESEARCH SUMMARY

Evaluation of the Effect of Aquatrols AquaGro® 2000L on Water Absorption and Distribution in a Canadian Peat

(Aquatrols Corporation, Cherry Hill, NJ)

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Objective: To evaluate the efficacy of several rates of Aquatrols AquaGro 2000L media surfactant for initial and subsequent water absorption and distribution in a Canadian peat.

Study Details

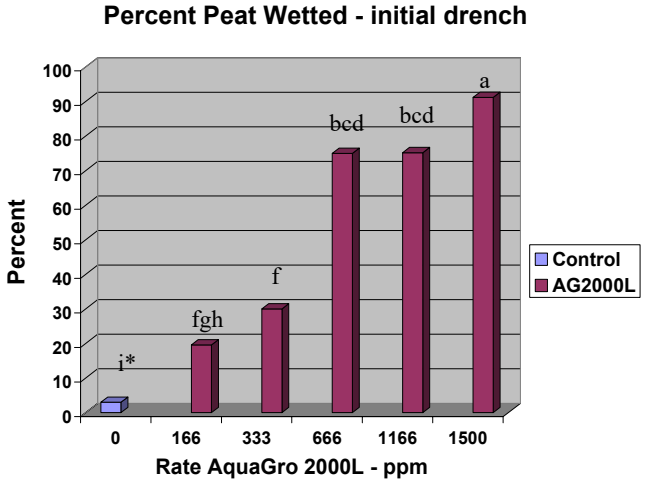
Location:
Cherry Hill, NJ

Materials:
- Canadian peat
  - Initial moisture content <15%
  - Air-dried moisture content <15%

Treatments:
- AquaGro2000L drenches ranging from 166 ppm to 1500 ppm.
- Untreated control (water)

Trial year:
- 1993

Evaluations:
- Water distribution – visual assessment of percent of media hydrated - from initial drench and upon rewetting
- Water retained from a measured amount applied (200 ml) – from initial drench and upon rewetting
- Ratio of water absorbed to volume of peat



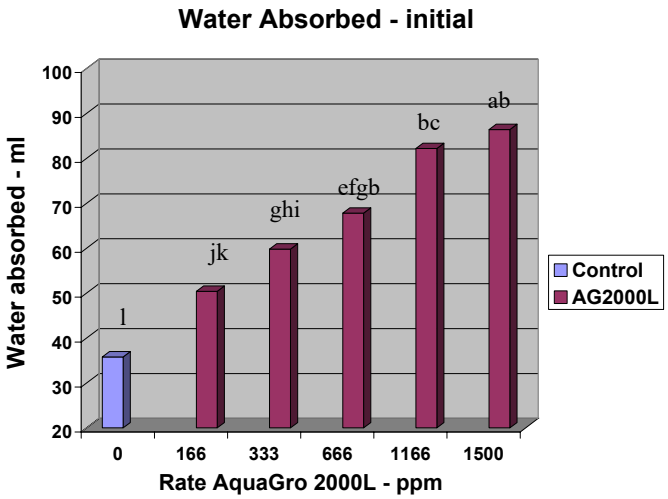
Results

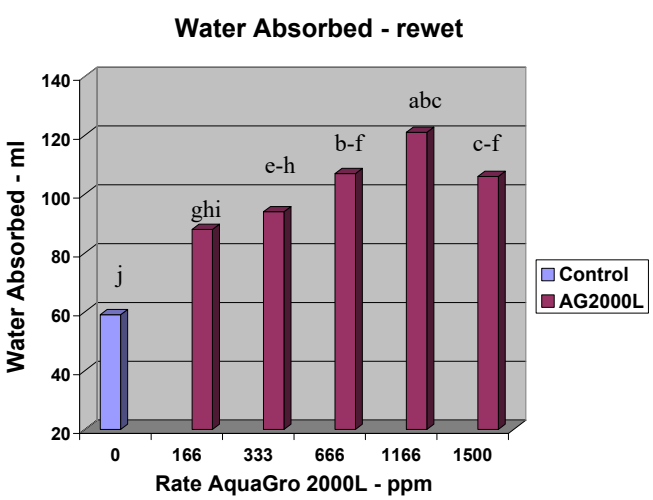
- Initial wetting - Aquatrols AquaGro 2000L significantly improved uniformity of wetting and water absorption compared to the control at all rates evaluated.
- Rewetting - AquaGro 2000L significantly improved rewetting uniformity and irrigation efficiency. 100% rewetting was achieved from drench rates of 500 ppm and higher.
- Ratio of water absorbed to volume of peat wet – AquaGro 2000L resulted in lower ratios compared to the control with little variation across a range of drench rates.

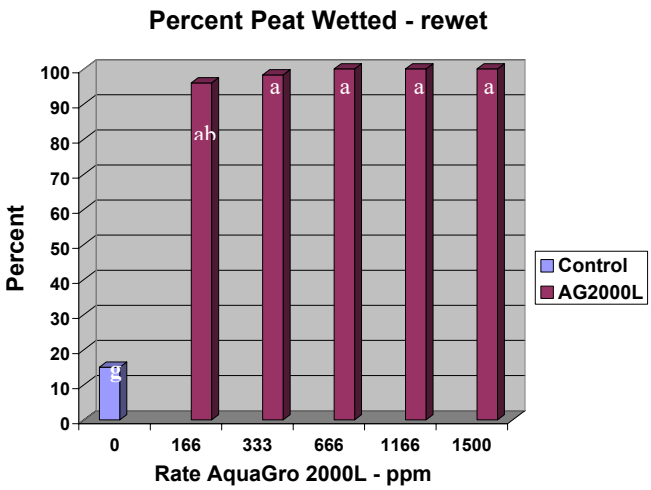
Conclusion

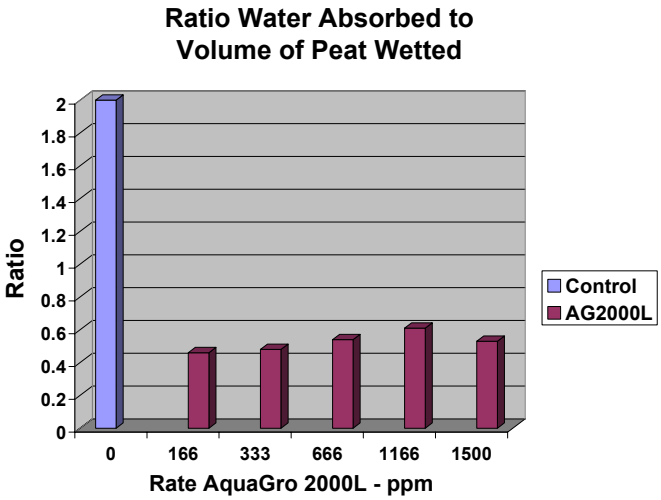
Aquatrols AquaGro 2000L significantly improved water absorption, percent peat wetted and the ratio of water absorbed to volume of peat wetted thus increasing distribution uniformity and irrigation efficiency.

(more data on next page)









*Bars with the same letter do not differ significantly (P=0.05).

Conclusion

Aquatrols AquaGro 2000L significantly improved water absorption, percent peat wetted and the ratio of water absorbed to volume of peat wetted thus increasing distribution uniformity and irrigation efficiency.