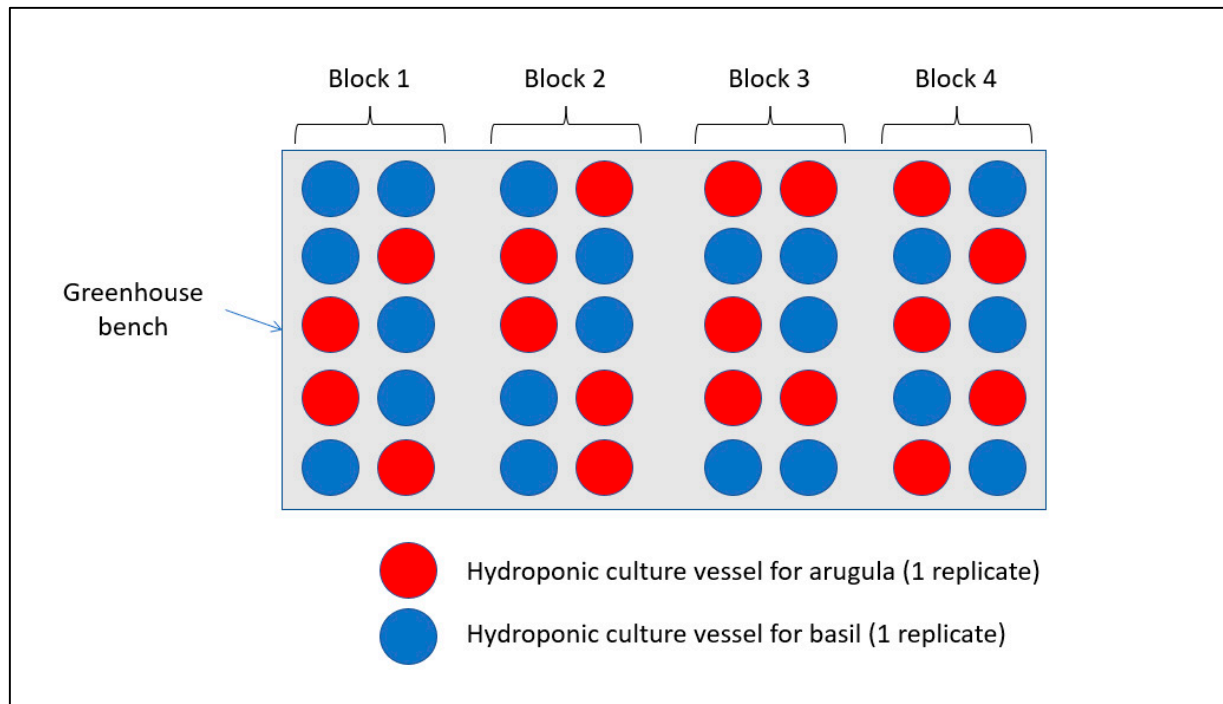


Supplemental Materials



Supplemental Figure S1. Small research-scale deep water hydroponic culture vessels were constructed. Each culture vessel held 4 L of solution and 2 or 3 plants, depending on the experiment. Plants were held in place using neoprene collars and plastic net baskets. Aluminum foil covered the exterior to prevent light from directly entering the solution. An air tube in the center of each culture vessel supplied constant aeration. As shown here, there were three plants per vessel or approximately 30 plants per m². Culture vessels with arugula and basil are shown.

Supplemental Figure S2. Schematic for the experimental layout for Experiment #1. The experiment was a 2×5 factorial using a randomized complete block design with four blocks. Plant species (arugula, basil) was the first factor and harvest day after transplanting seedlings (14, 18, 21, 28, and 42 d) was the second factor. Each hydroponic culture vessel containing three seedlings was considered one experimental unit or replicate. One experimental unit per treatment was removed from each block for destructive sampling at each harvest day, after which blocks were consolidated to maintain a uniform spacing between culture vessels.



Supplemental Figure S3. The experiment was a 2×2 factorial arranged using a randomized complete block design with three blocks. Plant species (arugula, basil) was the first factor and replenishment solution (standard or species-specific replenishment) was the second factor. Each culture vessel was considered one experimental unit and treatment replicate, and there were three replicate culture vessels for each species-replenishment solution treatment combination.

