SUPPLEMENTARY MATERIAL

Figure S1. Above: Site 1 orchard (five-year-old Jonathan/M9 apple trees, at a density of 3333 trees ha^{-1}. Below: site 2 orchard (42 year old Jonathan/seedling at a density of 455 trees ha^{-1}).

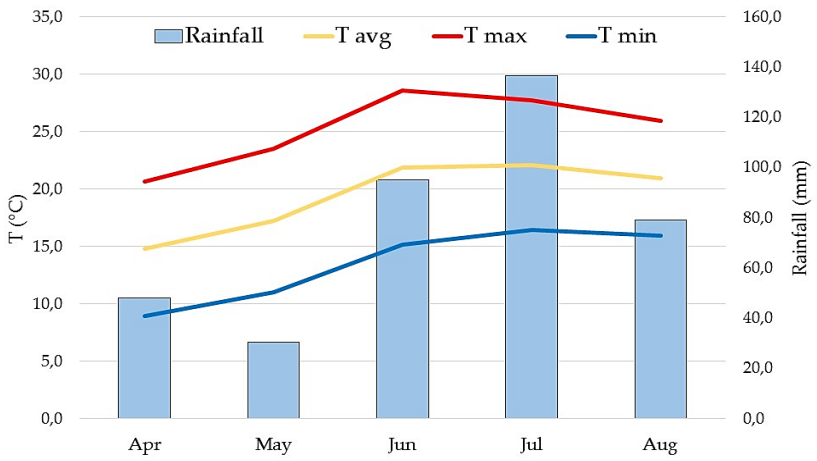

Figure S2. Meteorological conditions during the growing season 2014 at the Laimburg Research Centre in Ora (Italy) Temperatures (lines) and cumulated monthly rainfalls (columns).

Figure S3. Spots development in apple fruits cv. Jonathan affected by "Jonathan spot" disorder.

Figure S4. Increased red coloration by seaweed applications (above) compared to untreated control (below). The pictures were taken before harvest (end of August) in site 1 orchard.

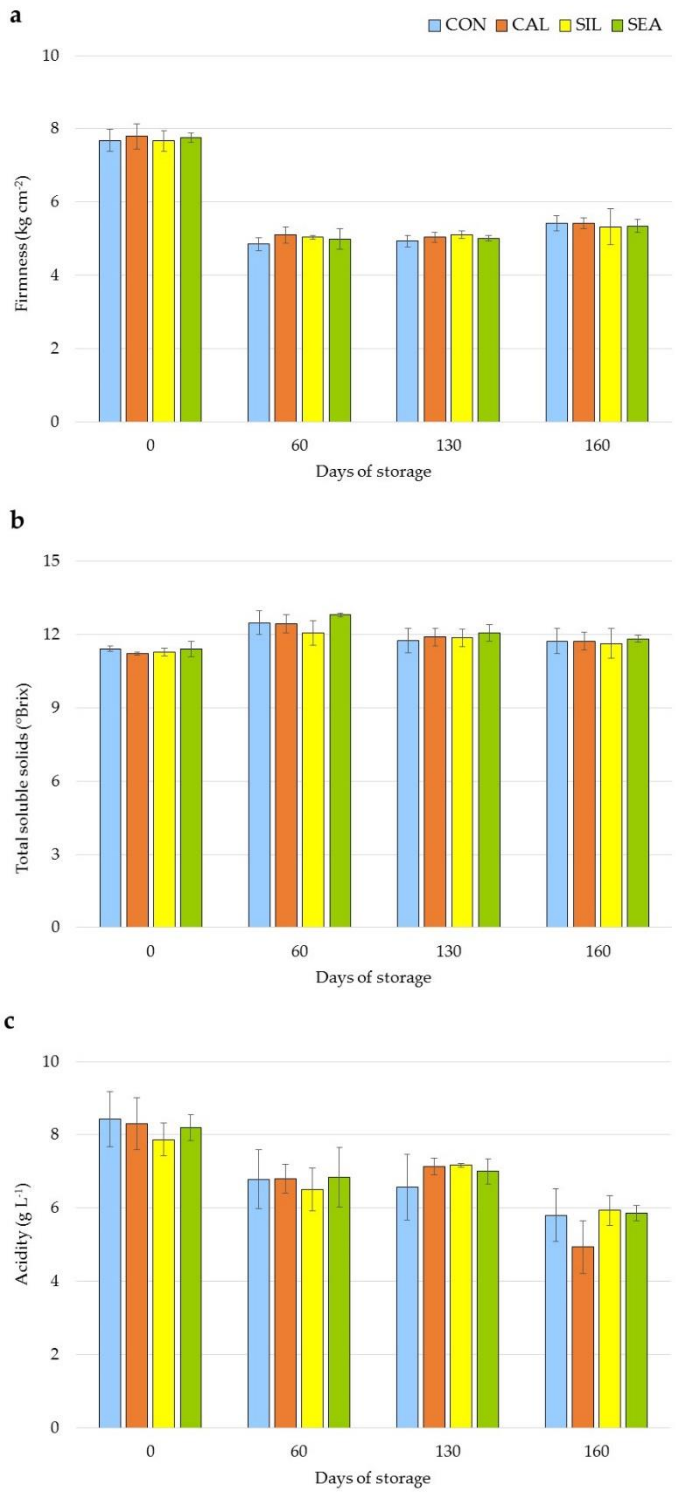

Figure S5. Firmness (**a**), total soluble solids (**b**), and acidity (**c**) at harvest and during storage (at 0, 60, 130, and 160 days) as affected by treatments in site 1. Vertical bars indicate mean ± SD, $n = 3$. Bars without letters indicate no significant differences according to LSD test at $p < 0.05$. Treatments' legend: CON, control; CAL, calcium chloride; SIL, Siliforce® + calcium chloride; SEA, seaweeds + calcium chloride.

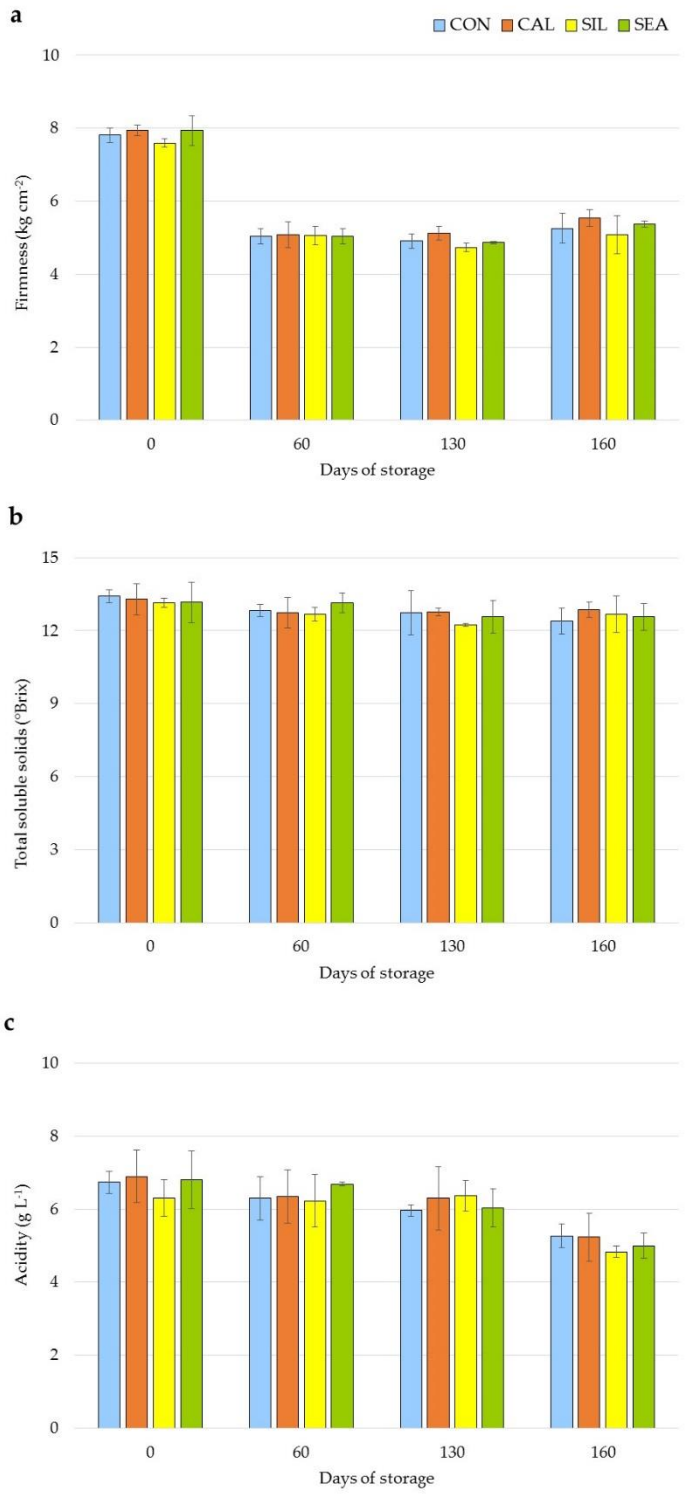

Figure S6. Firmness (**a**), total soluble solids (**b**), and acidity (**c**) at harvest and during storage (at 0, 60, 130, and 160 days) as affected by treatments in site 2. Vertical bars indicate mean ± SD, $n = 3$. Bars without letters indicate no significant differences according to LSD test at $p < 0.05$. Treatments' legend: CON, control; CAL, calcium chloride; SIL, Siliforce® + calcium chloride; SEA, seaweeds + calcium chloride.