

| Functional trait          | Trade-offs                | Equation        |
|---------------------------|---------------------------|-----------------|
| Leaves allocation         | Leaves carbon content     | Eq. 29          |
|                           | Total plant carbon stock  | Eq. 30          |
|                           | Leaf area index           | Eq. 21          |
|                           | Maintenance respiration   | Eq. 27          |
|                           | Growth respiration        | Eq. 26          |
| ABGW allocation           | ABGW carbon content       | Eq. 29          |
|                           | Total plant carbon stock  | Eq. 30          |
|                           | Light capture             | section SI.1.7. |
|                           | Maintenance respiration   | Eq. 27          |
|                           | Growth respiration        | Eq. 26          |
| Fine roots allocation     | Fine roots carbon content | Eq. 29          |
|                           | Total plant carbon stock  | Eq. 30          |
|                           | Water stress              | Eq. 38          |
|                           | Maintenance respiration   | Eq. 27          |
|                           | Growth respiration        | Eq. 26          |
| Leaves residence time     | Leaves carbon content     | Eq. 29          |
|                           | Total plant carbon stock  | Eq. 30          |
|                           | Leaf area index           | Eq. 21          |
|                           | Specific leaf area        | Eq. 22          |
|                           | Maintenance respiration   | Eq. 27          |
| ABGW residence time       | Growth respiration        | Eq. 26          |
|                           | ABGW carbon content       | Eq. 29          |
|                           | Total plant carbon stock  | Eq. 30          |
|                           | Light capture             | section SI.1.7. |
|                           | Maintenance respiration   | Eq. 27          |
| Fine roots residence time | Growth respiration        | Eq. 26          |
|                           | Fine roots carbon content | Eq. 29          |
|                           | Total plant carbon stock  | Eq. 30          |
|                           | Water stress              | Eq. 38          |
|                           | Maintenance respiration   | Eq. 27          |
|                           | Growth respiration        | Eq. 26          |