Spinach  
(*Spinacia oleracea*)

**Recommended Varieties**  
Melody Hybrid  
America

**Disease Resistance**  
AAS, DM, V  
AAS

A cool climate is best for producing spinach. During periods of warm temperatures and long days, plants are likely to produce seed stalks before making desirable foliage growth. Spinach is fast growing and short-lived and matures its leafy foliage in 7 weeks. Spinach then quickly goes to seed, although it produces for a longer period in the cool, coastal areas before seed stalk development occurs. When ready to harvest, you can either cut the entire plant or just remove the outer leaves. If you carefully cut the plant above the growing point, you can then obtain a second crop.

New Zealand spinach, which forms short runners and resembles regular spinach in leaf shape, is frost sensitive but tolerates warm weather much better than regular spinach. It is productive all season and can be cooked or used raw in salads.

### Nutritional Value

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Serving size: 1/2 c. boiled</th>
<th>Primary Nutrients</th>
<th>%RDA(m/f)</th>
<th>%RDA(f)</th>
<th>% Min. Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>21</td>
<td>Vitamin A</td>
<td>737 RE</td>
<td>74</td>
<td>92</td>
</tr>
<tr>
<td>Fat</td>
<td>0.2 g</td>
<td>Folic acid</td>
<td>131 mcg</td>
<td>66</td>
<td>73</td>
</tr>
<tr>
<td>Calories from fat</td>
<td>9%</td>
<td>Iron</td>
<td>3.21 mg</td>
<td>32</td>
<td>21</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0</td>
<td>Magnesium</td>
<td>79 mg</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>Sodium</td>
<td>63 mg</td>
<td>Calcium</td>
<td>122 mg</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Protein</td>
<td>2.7 g</td>
<td>Vitamin C</td>
<td>9 mg</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>3.4 g</td>
<td>Riboflavin</td>
<td>0.21 mg</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Dietary fiber</td>
<td>2.0 g</td>
<td>Vitamin B6</td>
<td>0.22 mg</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Potassium</td>
<td>419 mg</td>
<td></td>
<td></td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>
## Problem Diagnosis for Spinach

<table>
<thead>
<tr>
<th>What the Problem Looks Like</th>
<th>Probable Cause</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plants begin to grow tall and send up flower stalks</td>
<td>Bolting. Caused by long daylight periods from late spring to early fall</td>
<td>Plant spinach in fall or early spring. Choose varieties carefully.</td>
</tr>
<tr>
<td>Leaves partly or entirely consumed. Light green caterpillars are visible.</td>
<td><strong>Loopers</strong></td>
<td></td>
</tr>
<tr>
<td>Leaves become faded yellow</td>
<td><strong>Aphids</strong></td>
<td>Wash aphids from leaves before eating.</td>
</tr>
<tr>
<td></td>
<td>Inadequate nitrogen</td>
<td>Sidedress with nitrogen fertilizer</td>
</tr>
<tr>
<td>Leaves have light green to yellow blotches. Pull back skin of blotch to find maggots in the mine.</td>
<td><strong>Leafminers</strong></td>
<td>Pick off and destroy infested leaves.</td>
</tr>
<tr>
<td>Yellow to pale green areas on leaves. Fluffy gray spores develop on undersurface of leaves after rain or heavy dew.</td>
<td><strong>Downy mildew</strong></td>
<td>Plant resistant varieties. Remove old plant debris. Rotate.</td>
</tr>
<tr>
<td>Poor germination, emergence</td>
<td>High soil temperatures</td>
<td>Plant at correct time.</td>
</tr>
</tbody>
</table>