Potassium accumulation (kg K/ha) in various parts of kiwi fruit trees at different sampling periods (2005 to 2006), Zhouzhi County, Shaanxi.

<table>
<thead>
<tr>
<th>Sampling date</th>
<th>Plant part</th>
<th>March 28</th>
<th>May 18</th>
<th>July 9</th>
<th>September 8</th>
<th>November 6</th>
<th>January 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root</td>
<td>18</td>
<td>14</td>
<td>15</td>
<td>22</td>
<td>33</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Stem</td>
<td>18</td>
<td>14</td>
<td>20</td>
<td>27</td>
<td>38</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Leaves</td>
<td>–</td>
<td>17</td>
<td>12</td>
<td>17</td>
<td>38</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Fruits</td>
<td>–</td>
<td>–</td>
<td>87</td>
<td>104</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Total Plant</td>
<td>36</td>
<td>45</td>
<td>134</td>
<td>170</td>
<td>109</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

Although it is difficult to quantify the nutrients required for kiwi fruit orchards by soil testing, it is necessary to consider the K balance in order to compensate for annual removal of K by harvested fruits, fallen leaves, and cut branches. Assuming K fertilizer use efficiency of 40%, and 50% of the total annual K accumulation was from indigenous soil sources, the initial recommendation for K application required to offset K removal in the orchard would be 210 kg/ha. Results from this study suggest that about 85 kg K/ha (40%) should be applied in the fall after fruit harvest and the remaining 125 kg K/ha (60%) be applied prior to fruit expansion in early May.

The theme for the 2009 Colloquium, “Plant Nutrition for Sustainable Development and Global Health”, aims to highlight the importance of plant nutrition as a foundation science with impact on all aspects of cropping system and environmental sustainability, human health, and well being. Dr. Patrick Brown of the UC-Davis Department of Plant Sciences serves as President of the IPNC. Additional information is available at the website: http://ipnc.ucdavis.edu.

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References