Cultivation of Japanese Green Tea

Outline

1. Cultivation of Japanese Green Tea

2. Outline

3. Map of Japan

4. Bar chart of green tea production by region

5. Images of tea plants
Tea Propagation

Until 50 years ago, tea seedlings planted in the fields. Since the Meiji era, however, progress in tea breeding was established by the introduction of technology from foreign countries. Cutting method for clonal propagation was established before World War II, in 1936, by Oshida. Thereafter, this method had been used for tea propagation and cuttings, superior to productivity and quality, were introduced to tea fields. At present, the most parts of tea fields are planted various clonal propagated cultivars, producing high quality of Japanese green tea.

Clonal propagation

Cutting is favorable in June when the 1st flush of tea plant is matured and the color of its lower stem part is turned to yellow brown. Cuttings are prepared to cut mature flushes into 2 nodes, and are planted approximately 2 cm in depth (in the cutting bed). The suitable density of planting is 1 cutting per 4.5 cm. After planting, it is advisable to maintain the moisture of the air and soil.

Recently, direct introduction of cuttings through paper pots with unclosed bottom became popular. In this method, damage of vigorous root growth due to transplanting is lower than that of soil bed. The size of paper pot used for cutting depends on the size of plant at the time of transplanting. In Shizuoka, a convenient size for one-year-old cutting is 6 cm diameter and 15 cm in length. Even though the cutting grow than 30 cm in height, the paper pot can be moved from the nursery bed without any damage of roots.
Cultivation of Japanese Green Tea

Planting

Frame Formation
Pruning

Growth and Harvest of Tea Shoots
Cultivation of Japanese Green Tea

Plucking

The cultivation of Japanese green tea involves several stages, including the harvest or plucking. During the harvesting process, the tea leaves are carefully picked from the top of the tea bush. The activity is done by hand, ensuring that the leaves are fresh and of the highest quality. Each picking season is crucial as it affects the quality and flavor of the tea. The tea leaves are then dried and processed to remove moisture and to develop the desired characteristics. This stage is vital in determining the final product, whether it is used for matcha, green tea, or sencha.
Covering Culture

Frost Protection
Cultivation of Japanese Green Tea

Major Pests and Diseases and Their Control

The cultivation of Japanese green tea involves managing several pests and diseases to ensure high-quality production. In this section, we will discuss the major pests and diseases that can affect tea leaves and the control methods used to mitigate their impact.

1. **Major Pests**
   - **Tea Caterpillar**
     - Description: A common pest that feeds on tea leaves, causing damage to the plants.
     - Control: Use Integrated Pest Management (IPM) strategies, including biological control using natural predators and pesticides when necessary.

2. **Major Diseases**
   - **Downy Mildew**
     - Description: A fungal disease that causes leaves to turn yellow and fall off, reducing the overall health of the tea plants.
     - Control: Use fungicides according to the manufacturer's instructions and implement IPM practices.

Visual aids include images of affected tea leaves and pests, illustrating the damage caused by these pests and diseases and the areas targeted for control measures.

By understanding and managing these pests and diseases, tea farmers can maintain the quality and productivity of their tea gardens.
Cultivation of Japanese Green Tea

Fertilizer Application

<table>
<thead>
<tr>
<th>Month</th>
<th>Application 1</th>
<th>Application 2</th>
<th>Application 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Plowing
Low Input Sustainable Cultivation in Tea Fields

Reduce of Pesticides Spraying

Reduce of Fertilizer Application