The extractives of
Bamboo Grass
Chishimazasa
(Sasa Kurilensis)

Manufactured by Nippon Haruma Co., Ltd
Distributed by CBC (EUROPE) LTD
Nova Milanese (MI)
Tel. 0362-365079
Scientific proof of Chishimazasa with mysterious effect

- Chishimazasa has been taken to our life as a plant with many effects long ago.
- The company clarifies a mysterious charm and effects by scientific manners, and develops the extraction method to utilize all effective ingredients in Chishimazasa.
- The company use the raw material that is harvested at national forest in Mt.Hakkoda’s mountain food area without any enviromental pollution.
- The application of extractives varies so many,
  - Functional Foods
  - Cosmetics
  - Skin treatment
  - Medical products
- And will be expected more in future.
The low temperature high pressure compression extraction method is available to take out all ingredients by without any changes.

The method is patented under the No.2002407.

In all the process of extraction, neither water and chemicals are used.

The method is available to extract and keep a quality of amino acid at least, thought the other method by both hot water and alcohol extractions are not available.
The leaf and the stalk of Chishimazasa of natural growth at Mt.Hakkoda

- Even if it is the same kind of bamboo grass, it is important that the colony soil is extremely natural.
- Wild bamboo grass growing up at a beechen virgin forest in Mt.Hakkoda/Aomori Pref. is our raw material.
- In the early and mid summer harvest, bamboo grass is very active and is used as best raw material.
- Not only leaf is used, but also the stalk is used that contains the useful ingredients.
# Active ingredients

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<th>Analysis Item</th>
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<th>Analysis Method</th>
<th>Main Function</th>
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<tr>
<td>Soluble Polysaccharide</td>
<td>1.40%</td>
<td>Gel Filtration Method</td>
<td>Immune promotion</td>
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<tr>
<td>Total Chlorophyl</td>
<td>0.3mg/100g</td>
<td>Spectrophotometer</td>
<td>Chlorophyll, Blood</td>
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<tr>
<td>Amino Acid(18 kinds)</td>
<td>357mg/100g</td>
<td>Automatic Analysis</td>
<td>Protein</td>
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<tr>
<td>Lignin</td>
<td>0.24%</td>
<td>P.J.Van Soest</td>
<td>Anti-tumor</td>
</tr>
<tr>
<td>Tannin</td>
<td>0.11%</td>
<td>Folin-Denis Method</td>
<td>Anti-inflammation</td>
</tr>
<tr>
<td>Total Carotenes(Vit A effect)</td>
<td>0.12mg/100g</td>
<td>Spectrophotometer</td>
<td>Immune promotion</td>
</tr>
<tr>
<td>Riboflavins(Vit B12)</td>
<td>0.03mg/100g</td>
<td>Lmifrabin Spectrophotofluorometer</td>
<td>Metabolism, Anti-inflammation</td>
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<tr>
<td>Pantothenic Acid(Vit B5)</td>
<td>0.56mg/100g</td>
<td>Microbioassay</td>
<td>Detoxication</td>
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<tr>
<td>Vitamin B6</td>
<td>0.28mg/100g</td>
<td>Microbioassay</td>
<td>Metabolism</td>
</tr>
<tr>
<td>Vitamin B12</td>
<td>0.06 μg/100g</td>
<td>Microbioassay</td>
<td>Blood, Skin, immunity</td>
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<tr>
<td>Total Ascorbic Acid</td>
<td>14mg/100g</td>
<td>Hydrazine Spectrophotometer</td>
<td>Collagen, Scavenge active oxygen</td>
</tr>
<tr>
<td>Zinc</td>
<td>7.04ppm</td>
<td>Atomic Absorption</td>
<td>Protein, DNA synthesis</td>
</tr>
<tr>
<td>Iron</td>
<td>1.88mg/100g</td>
<td>Rorfenantororphosphorescence</td>
<td>Hemoglobin</td>
</tr>
<tr>
<td>Calcium</td>
<td>7.2mg/100g</td>
<td>Atomic Absorption</td>
<td>Enzyme, hormon</td>
</tr>
<tr>
<td>Sodium</td>
<td>5.54mg/100g</td>
<td>Atomic Absorption</td>
<td>Cell osmotic pressure</td>
</tr>
<tr>
<td>Potassium</td>
<td>257mg/100g</td>
<td>Atomic Absorption</td>
<td>Relation with Sodium</td>
</tr>
<tr>
<td>Magnesium</td>
<td>17.2mg/100g</td>
<td>Atomic Absorption</td>
<td>Cell structure</td>
</tr>
<tr>
<td>Foloic Acid</td>
<td>3 μg/100g</td>
<td>Microbioassay</td>
<td>Metabolism</td>
</tr>
</tbody>
</table>
Production of Chishimasasasa extracts

Process & Application

- Fresh sasa → High Pressure compression → Filtration → Blanching
  - K5
    - Sasa powder 250mesh
    - Healthfood

- Separate coagulation → Fractionation
  - K1
    - Chlorophyllis rich powder
    - Insoluble
    - Functional Food, Cosmetic
  - K2
    - Transparent Liquids Extracts
    - Healthy Drink, Cosmetic
  - K3
    - Dark Brown Liquids
    - Functional Food
  - K4
    - Heavy specific gravity parts of K3
    - Liquid Extracts/SD Powder
    - Functional Food
The list of applied products

K2

K3
New functions of extracts

- Deodorant for Body odor, foul breath
- Skin care for Atopy, Dermatitis (Picture 1)
- Protecting liver by Alcoholic fatty liver (Picture 2)
- Prevent Helicobacter Pylori