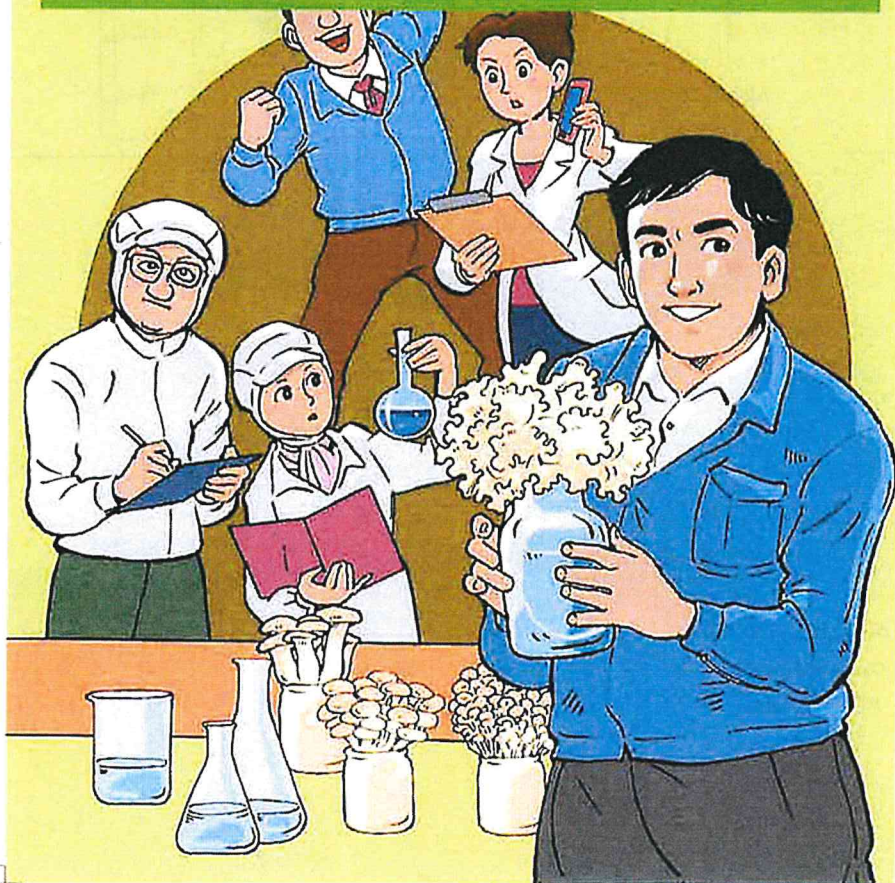


The one and only
Sparassis crispa

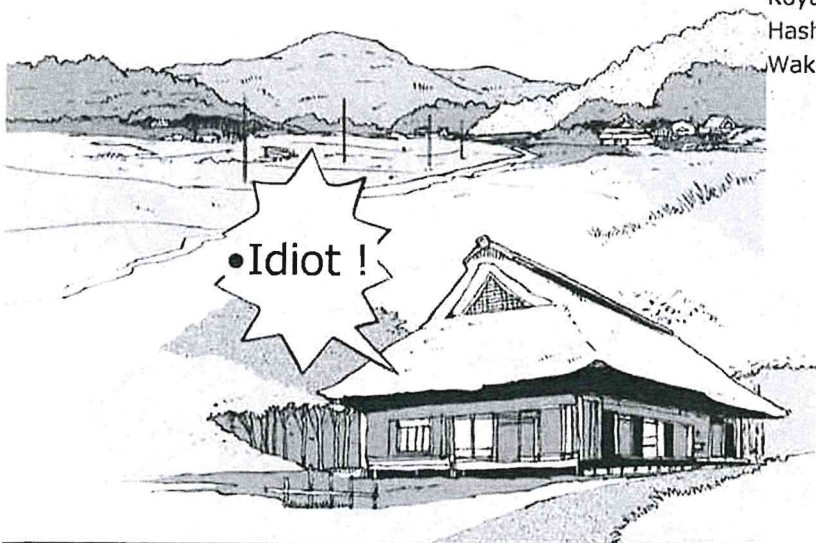
Hanabira Take
Cauliflower mushroom

~Immunity and the Power of Lactic acid~



1968

Koyaguchi
Hashimoto City
Wakayama Pref.



Main characters



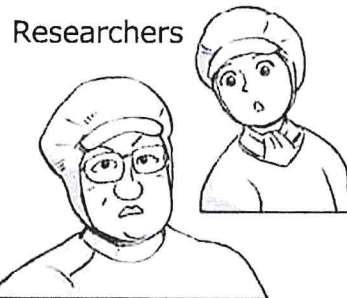
Kubo Masahide
Katsuragi Sangyo President



Ohtomo Katsuyuki (58 years old)
Katsuragi Sangyo Employee

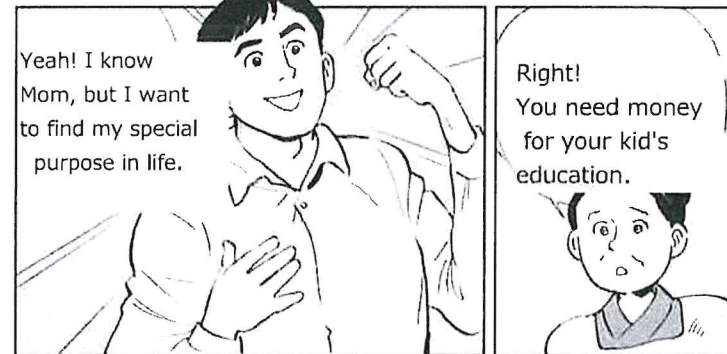
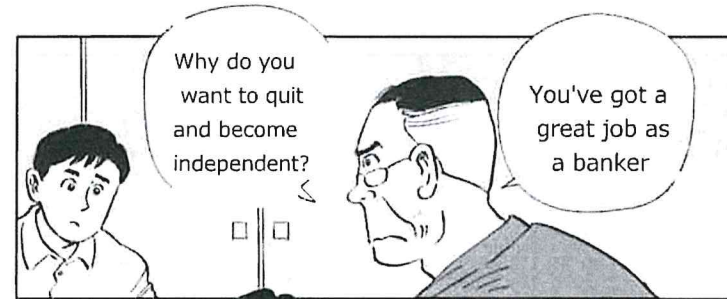
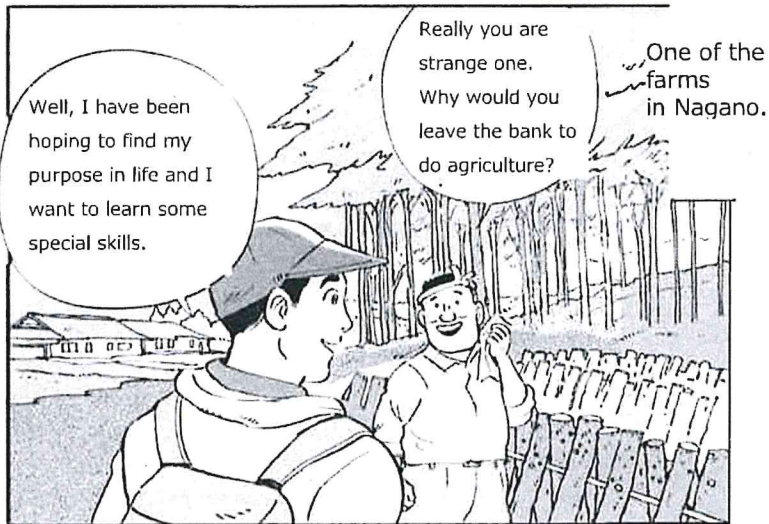
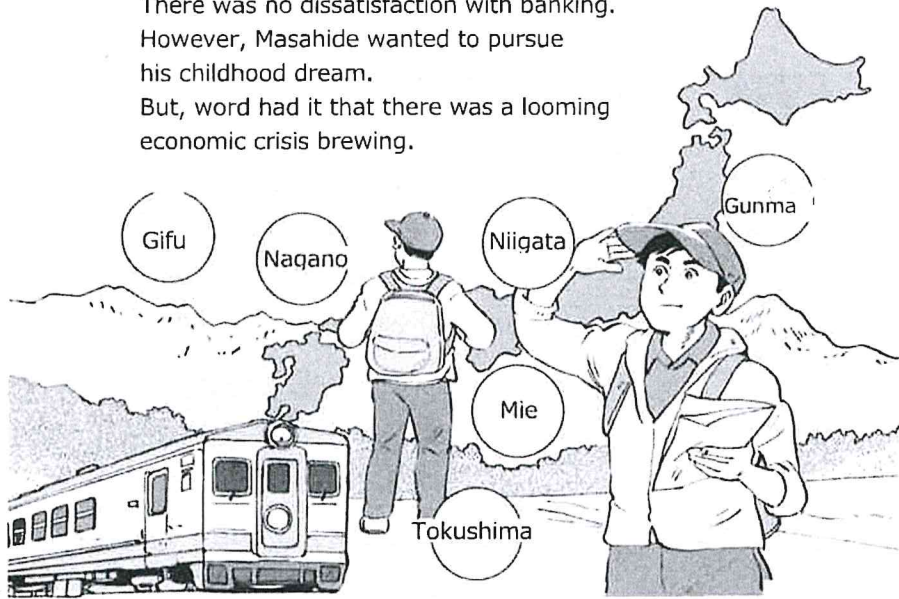


Yamashita Hiromi (35 years old)
Katsuragi Sangyo Employee

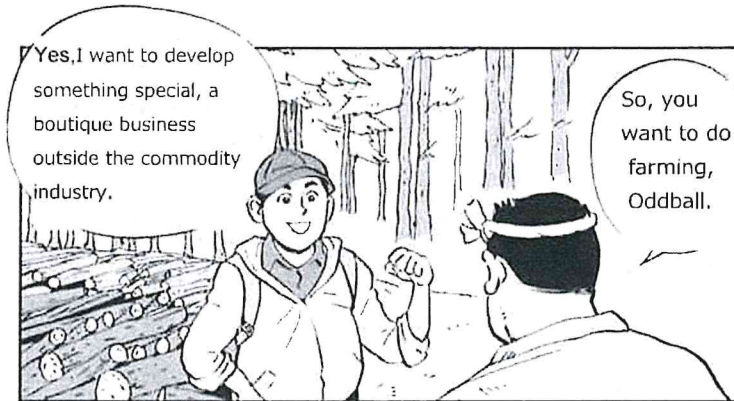
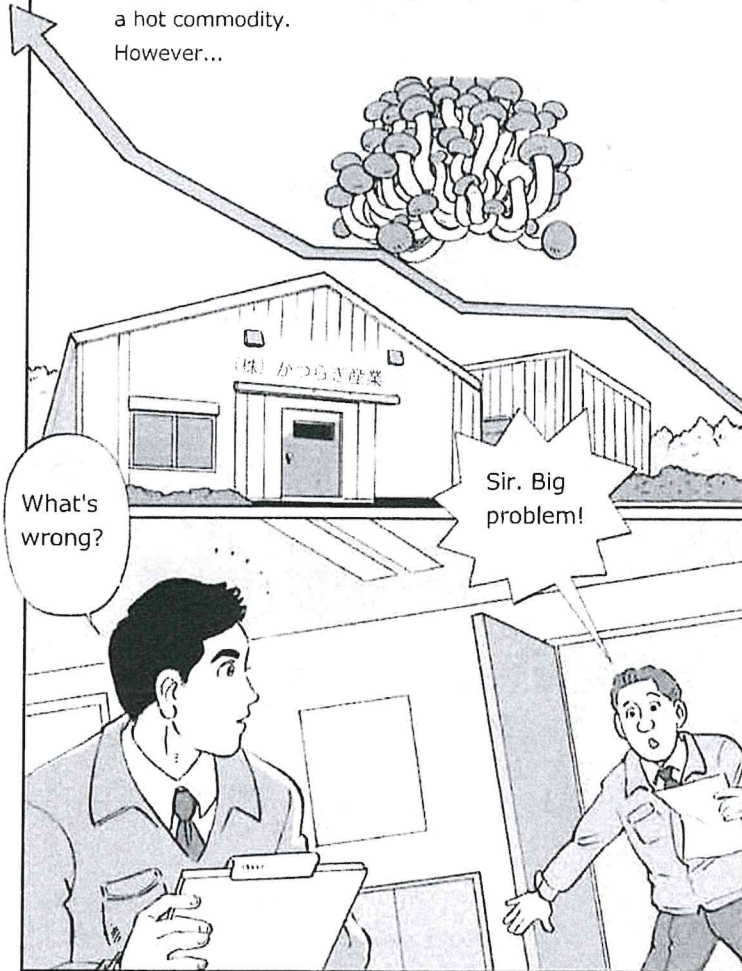


Researchers

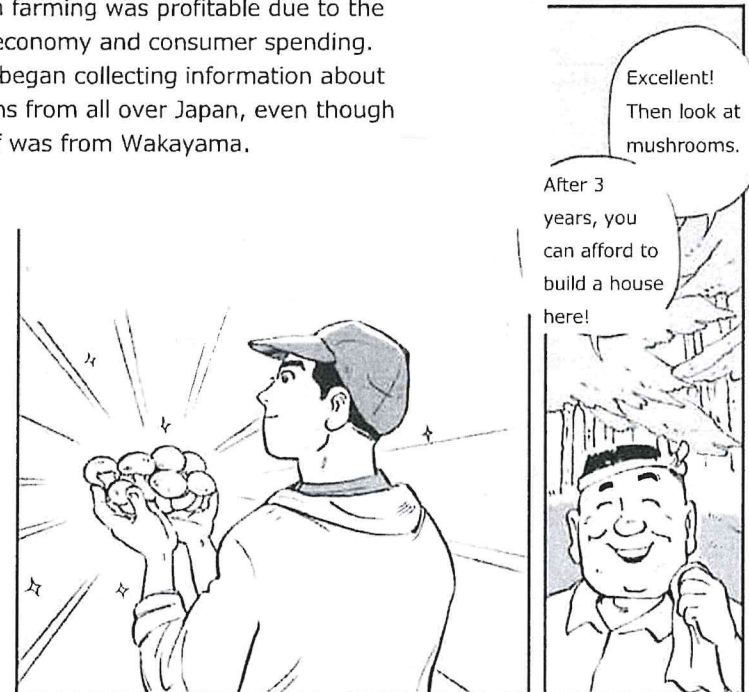
There was no dissatisfaction with banking.
 However, Masahide wanted to pursue
 his childhood dream.
 But, word had it that there was a looming
 economic crisis brewing.

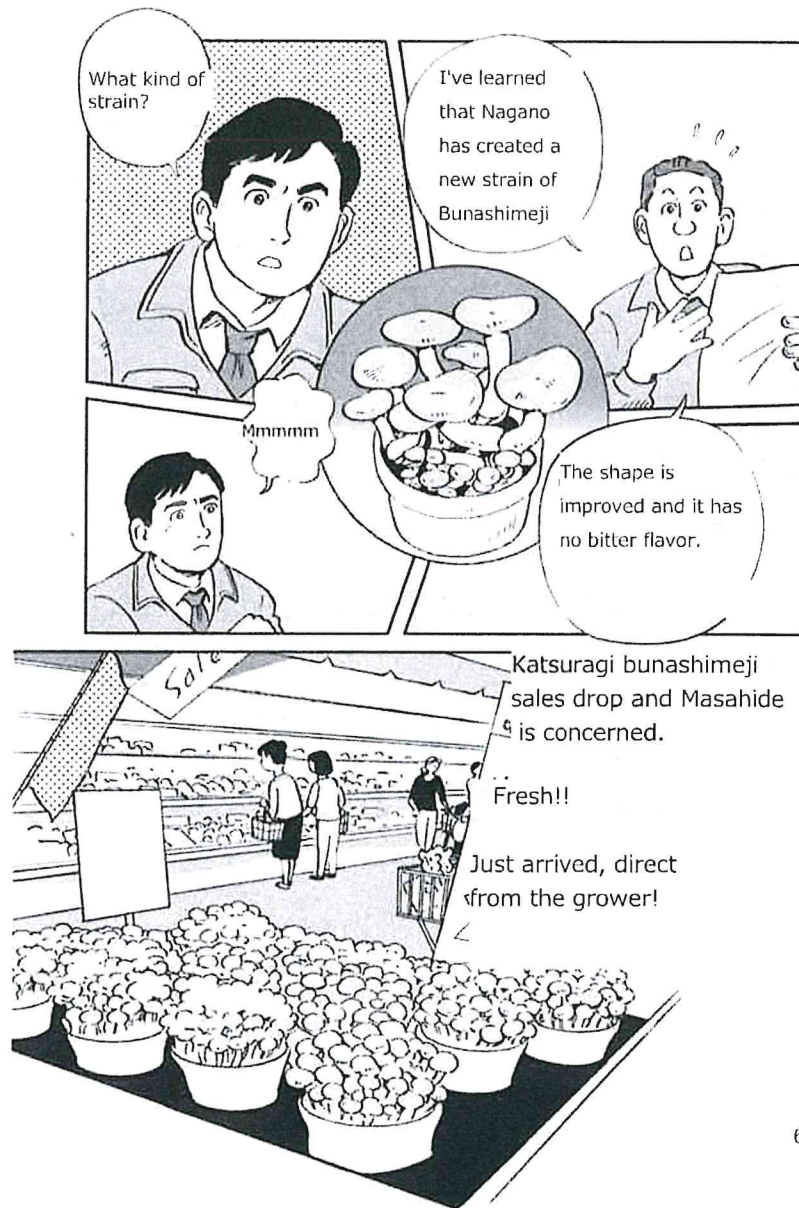


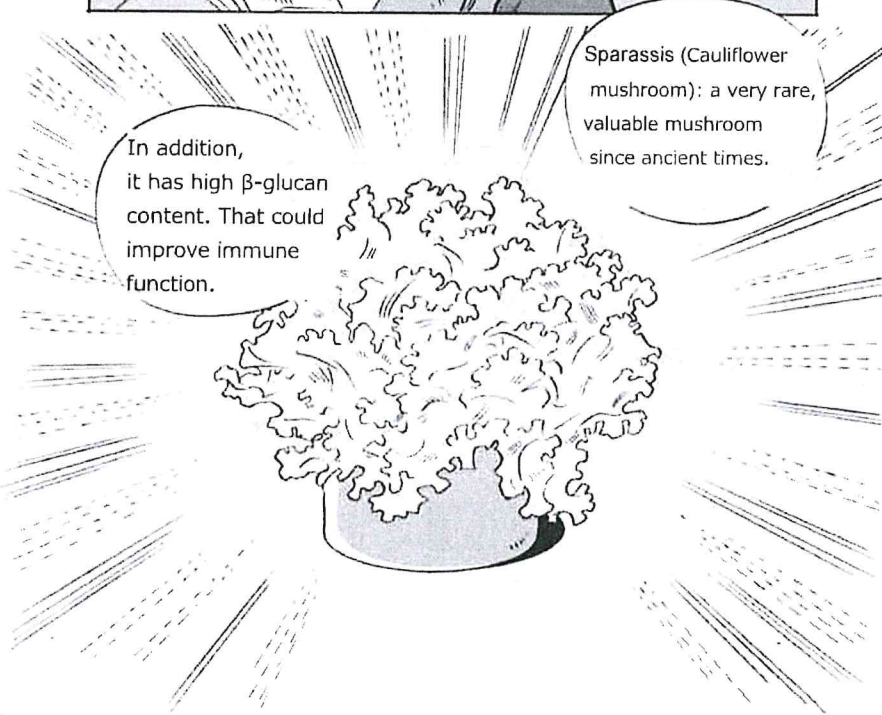
A year later he founded Katsuragi Sangyo Co, and started Bunashimeji production. He developed a proprietary cultivation technology that didn't conflict with any patents. His company became the highest volume grower outside of Nagano. They expanded sales to a major supermarket, creating a hot commodity. However...



Mushroom farming was profitable due to the booming economy and consumer spending. Masahide began collecting information about mushrooms from all over Japan, even though he himself was from Wakayama.





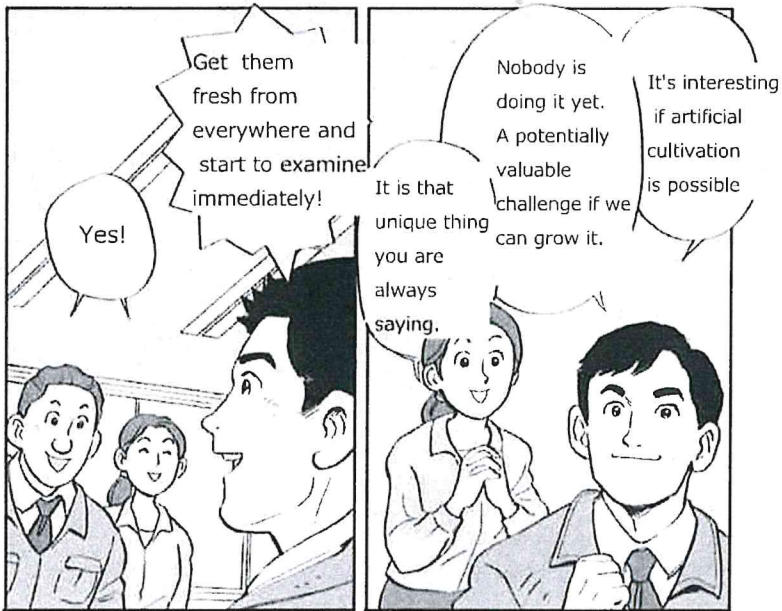


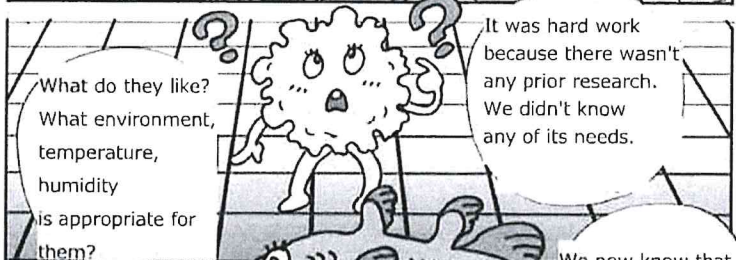
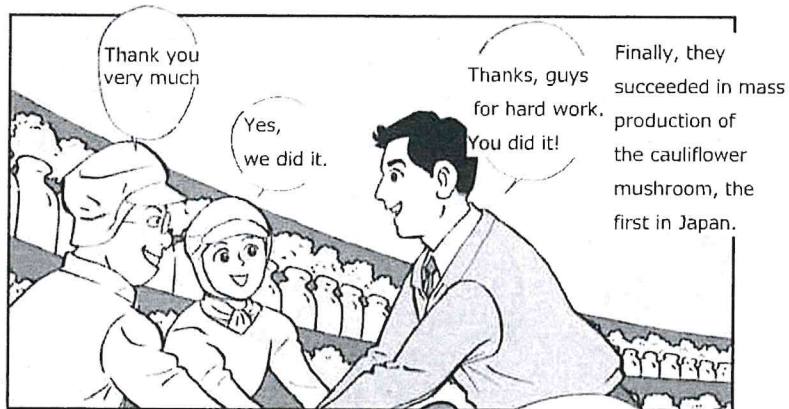
Mushroom strain improvement is a highly technical skill that carefully manages the composition and cultural circumstances required for cross-breeding.

All staff focused on the research.

In those days, mushroom information was collected from local newspapers.





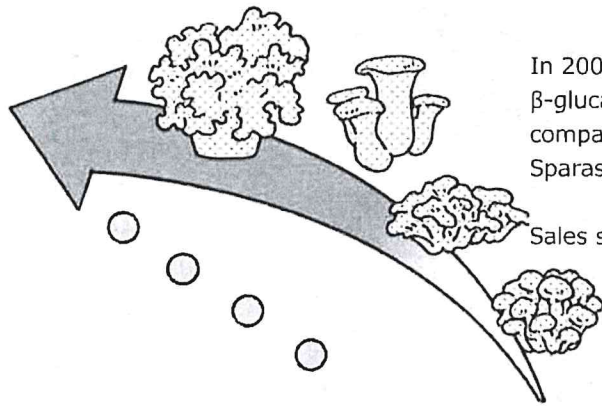


They got fresh Sparassis from all over Japan their network.
 The most expensive head was 20,000 yen for 500g.
 It was more expensive than Matsutake.



The company hired a PhD scientist who graduated from an agricultural university.
 For three years, they made tissue isolations and collected spores for breeding, accumulating strains and data.





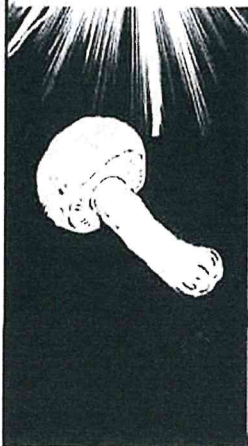
In 2004, based on its high β -glucan content, a major company began selling Sparassis.

Sales steadily expanded.



It's 200-300 million yen in value!

What'll we do? We have ten tons of inventory!



However, in 2006 sales plummeted due to a rumor that mushrooms might contain a carcinogen. Despite no relation to Agaricus, which had illegal and falsified claims.

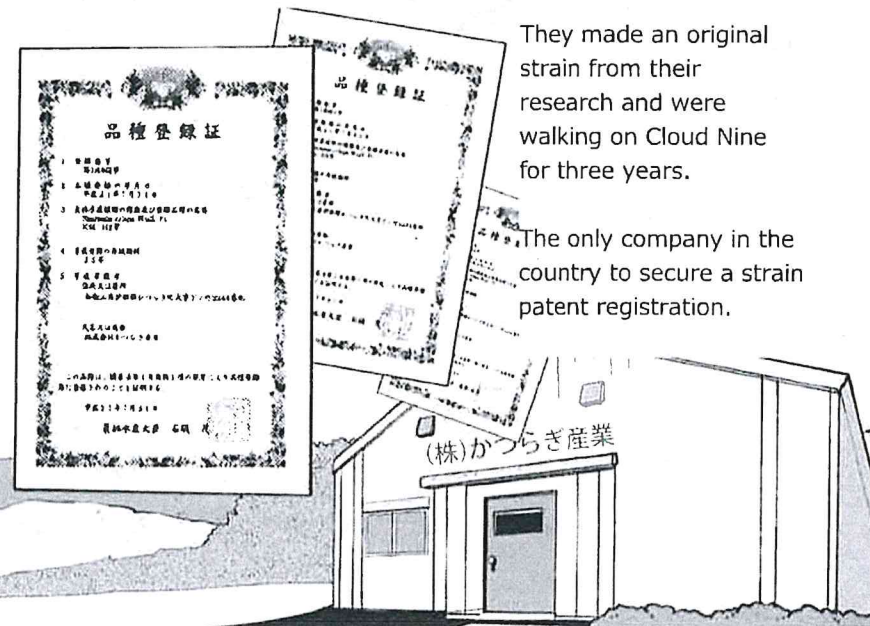


It true, they have great strength and life force.

Organism evolve, adapting to changes in the environment.

It survived adaptively to change the environment

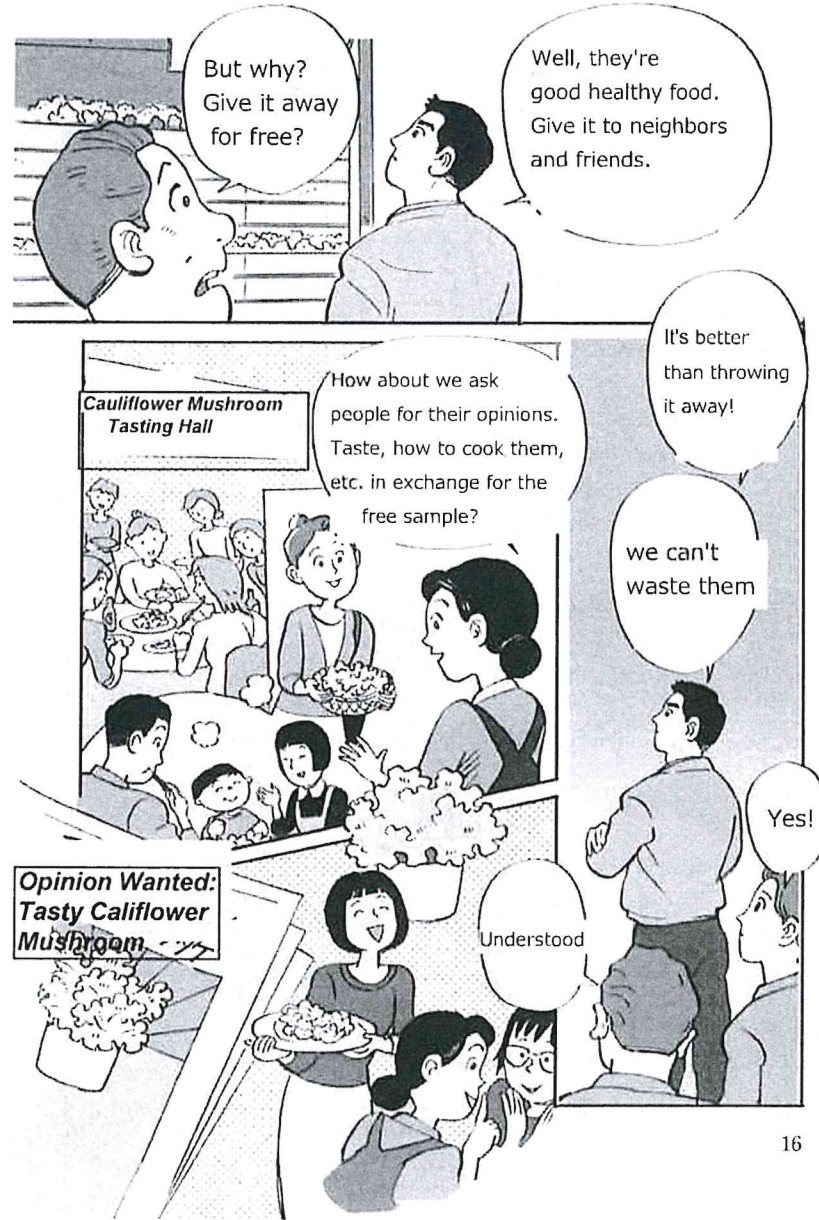
Let's sell our sparassis!

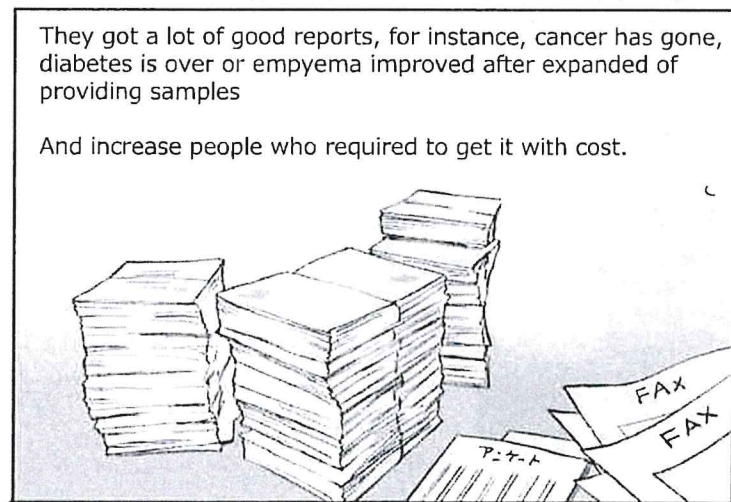
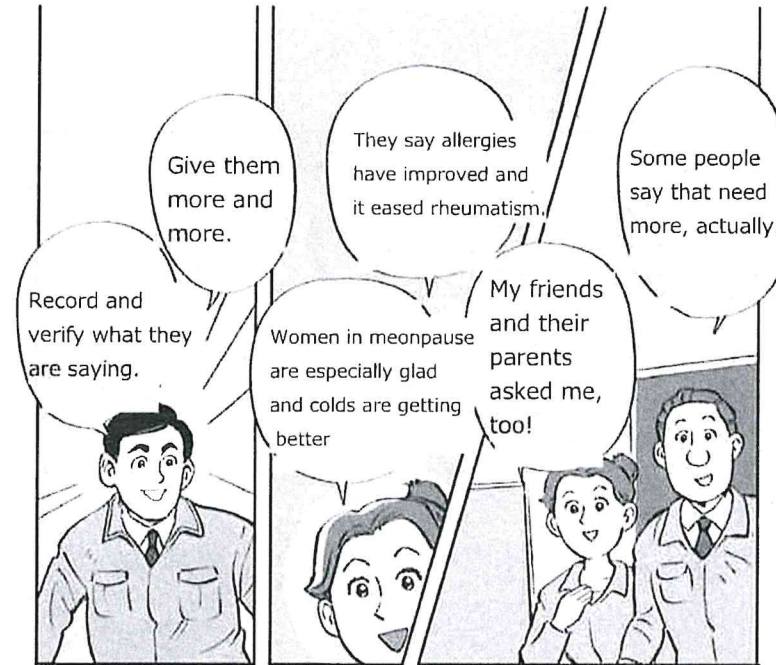
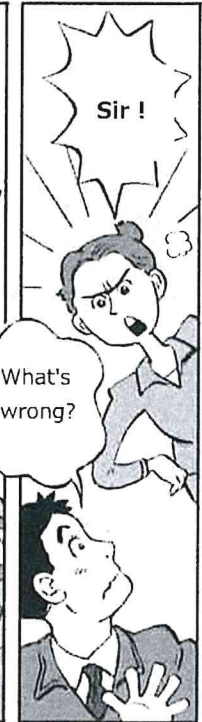


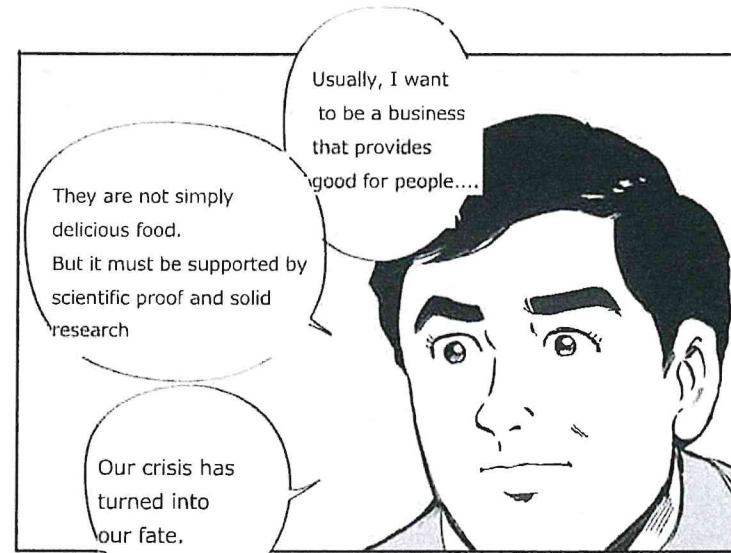
They made an original strain from their research and were walking on Cloud Nine for three years.

The only company in the country to secure a strain patent registration.

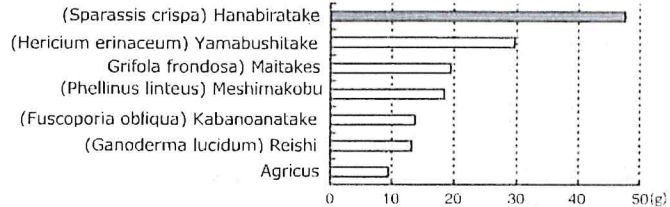
A few months later



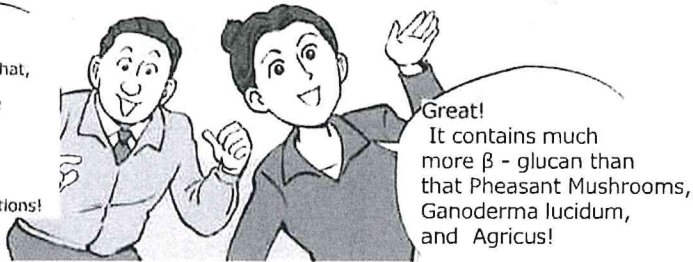




(Comparison of β -glucan content) ')



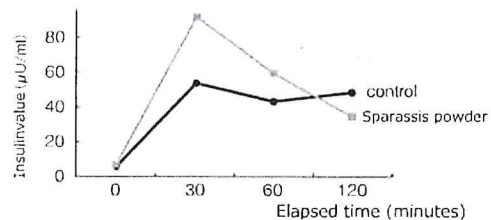
Well, beyond that, there are so many research presentations!



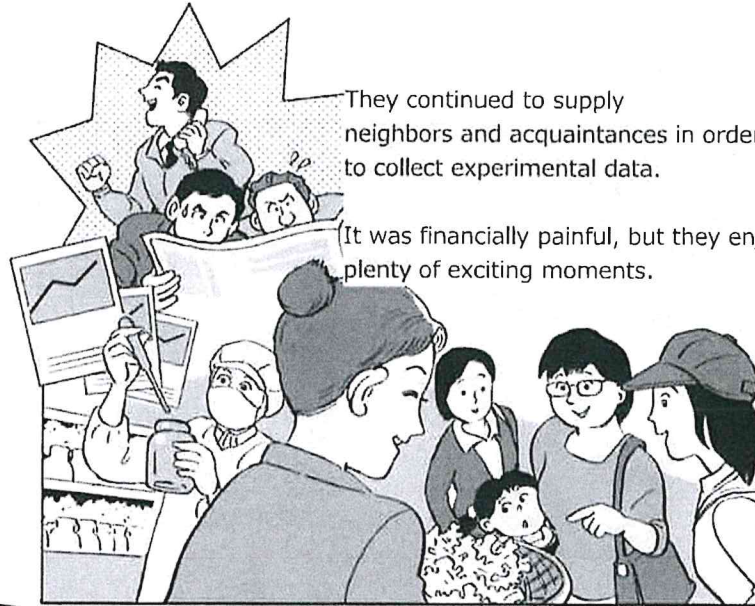
Great! It contains much more β - glucan than that Pheasant Mushrooms, Ganoderma lucidum, and Agricus!

Research Announcements of Sparassis crispa

- Reducing effect on blood sugar in diabetic mice
- An analysis on the mechanism of the blood pressure elevation effect
- Effects on glucose tolerance (Human test)
- Influence on blood glucose and insulin density
- Improvement of cerebral vascular endothelial function
- Suppressing body fat accumulation in rats
- (Beautiful skin effect) Promoting collagen production and inhibitory effect of melanin pigment formation in Sparassis crispa extract



After ingesting 1000 mg of Sparassis crispa powder in humans (6 persons: 18 to 34 years old). The insulin level of Sparassis crispa powder was about 1.7 times more than control after 30 minutes.

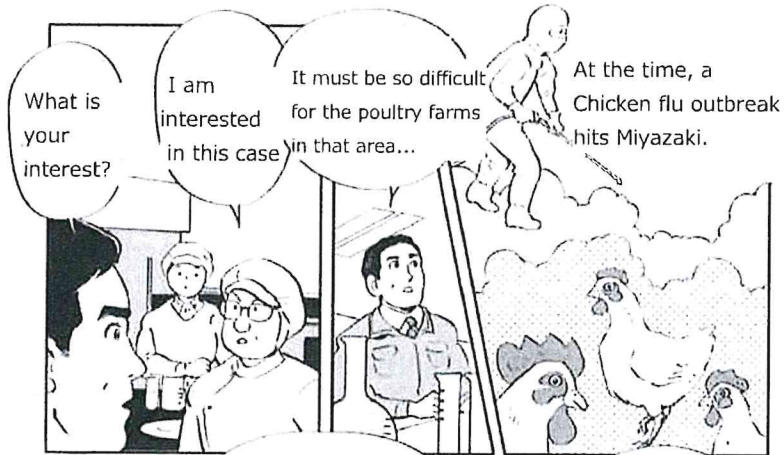


They continued to supply neighbors and acquaintances in order to collect experimental data.

It was financially painful, but they enjoyed plenty of exciting moments.



As a result of major marketing campaigns and a variety of research results, society begins to pay attention to the cauliflower mushroom

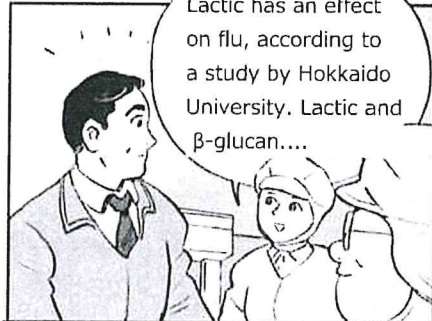


What is your interest?

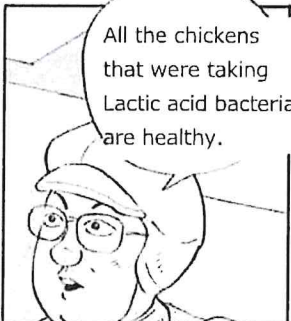
I am interested in this case

It must be so difficult for the poultry farms in that area...

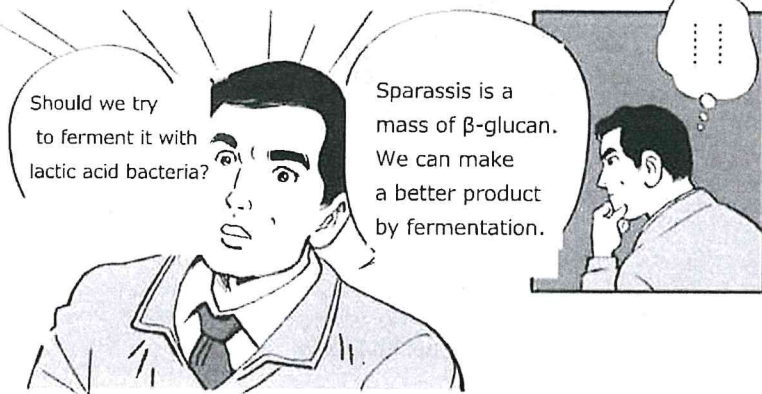
At the time, a Chicken flu outbreak hits Miyazaki.



Lactic has an effect on flu, according to a study by Hokkaido University. Lactic and β -glucan....



All the chickens that were taking Lactic acid bacteria are healthy.



Should we try to ferment it with lactic acid bacteria?

Sparassis is a mass of β -glucan. We can make a better product by fermentation.



Still thinking?

Is it time to sell it as a health food?

Look at these papers!

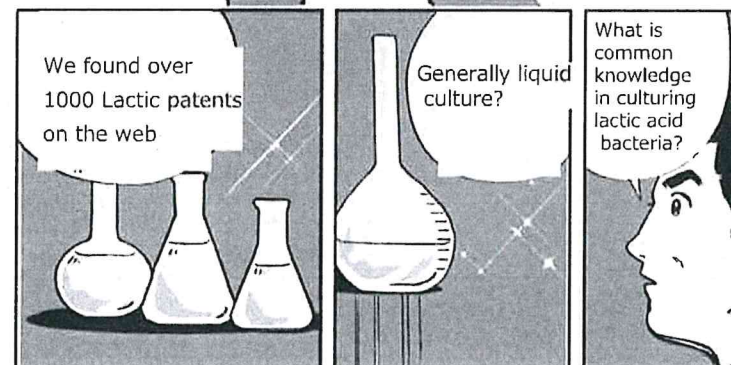
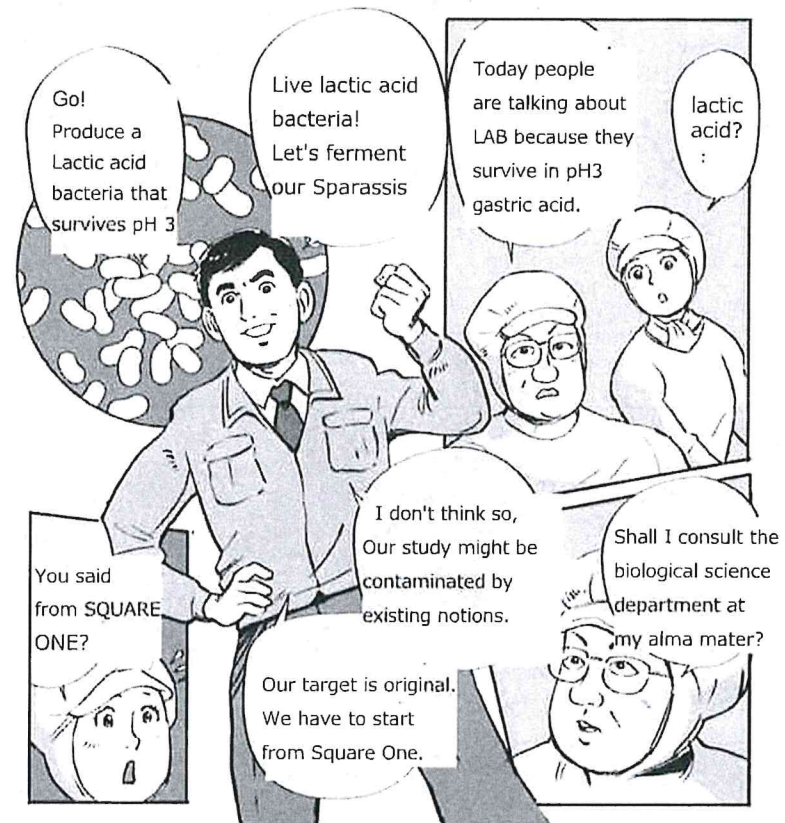
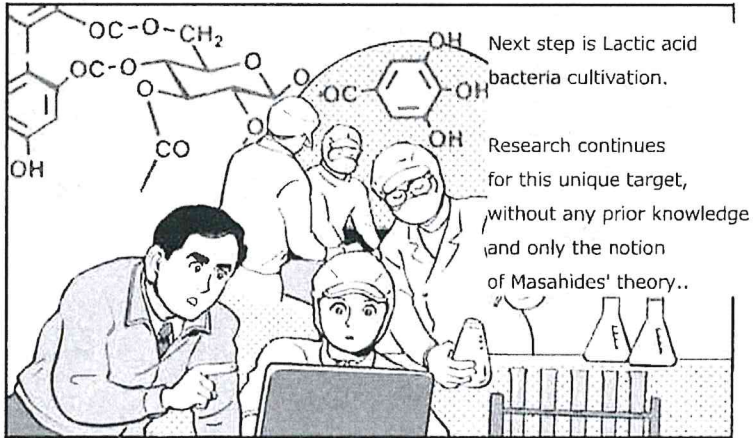
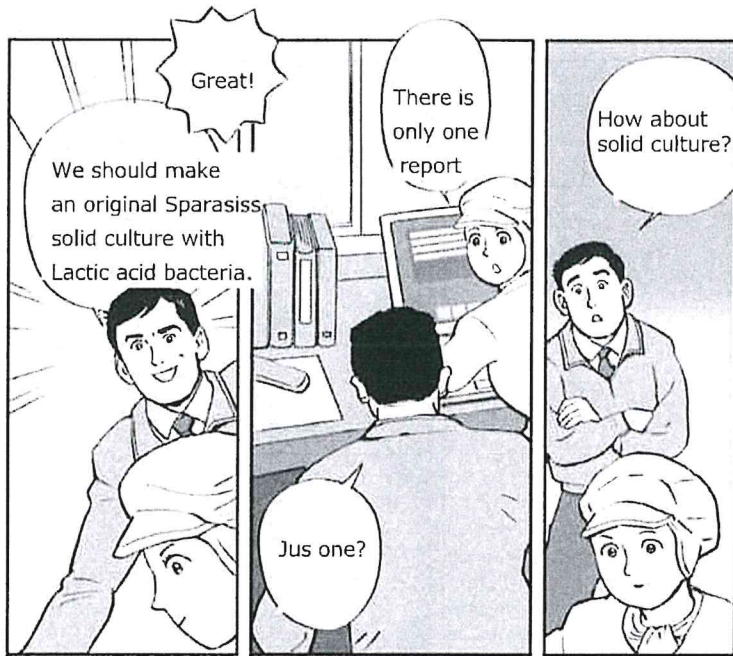
There is formal research data from academic societies and universities

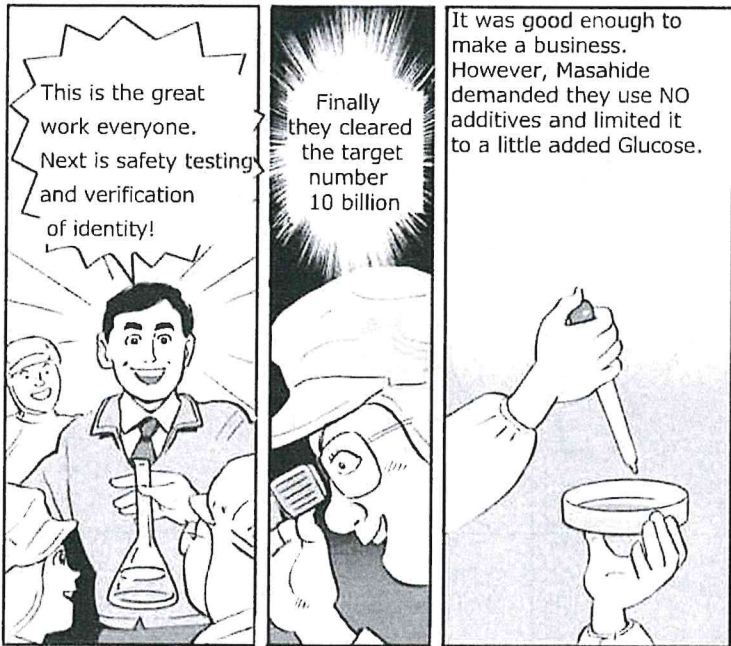
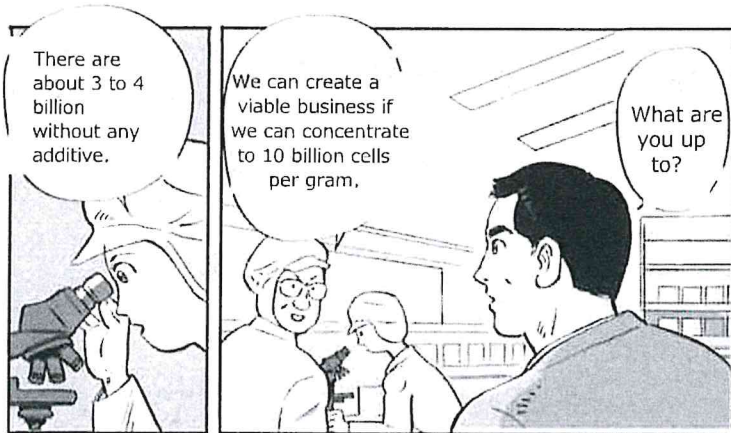


Yeah Right?

We still can't call this "the one and only". Not yet.

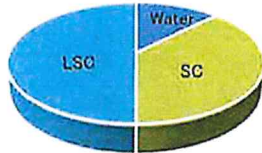
Brought low





■ Distribution of NK cells, macrophages, neutrophils, CCR2 and p-Syk in the intestinal epithelium of mouse ingesting Lactobacillus Fermented Sparassis Crispa Extract

⑤ Effect of Lactobacillus Fermented Sparassis Crispa extract on Macrophage distribution



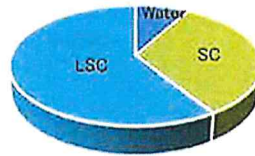
Lactobacillus Fermented Sparassis Crispa (LSC) increased macrophage by about 4 times comparing to drinking water.

⑦ Effect of Lactobacillus Fermented Sparassis Crispa Extract on p-Syk distribution



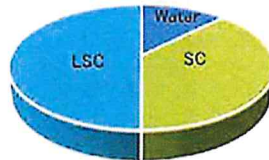
Lactobacillus Fermented Sparassis Crispa (LSC) increased the p-Syk by about 20 times comparing to drinking water

④ Effect of Lactobacillus Fermented Sparassis Crispa Extract on NK Cells distribution



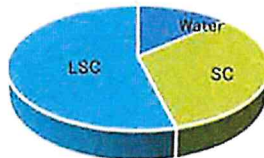
Lactobacillus Fermented Sparassis Crispa (LSC) increased NK cells by about 7 times comparing to drinking water.

⑥ Effect of Lactobacillus Fermented Sparassis Crispa Extract on Neutrophils distribution



Lactobacillus Fermented Sparassis Crispa (LSC) increased the Neutrophil by about 4 times comparing to drinking water.

⑧ Effect of Lactobacillus Fermented Sparassis Crispa Extract on CCR2 distribution



Lactobacillus Fermented Sparassis Crispa (LSC) increased CCR2 by about 4 times comparing to drinking water

- ④ Lactobacillus Fermented Sparassis crispa Extract promotes the killing of cancer cells by NK cells.
- ⑤ Lactobacillus Fermented Sparassis crispa Extract promotes the killing of cancer cells by Macrophages.
- ⑥ Lactobacillus Fermented Sparassis crispa Extract promotes the killing of cancer cells by Neutrophils.
- ⑦ P-Syk (Phospho-Syk) is involved in signal transduction in the activation of innate immunity, so that Lactobacillus Fermented Sparassis crispa Extract has an action to enhance innate immunity.
- ⑧ In CCR2-deficient mice, intracerebral amyloid beta sediment is likely to be promoted, so that Lactobacillus Fermented Sparassis crispa Extract may suppress accumulation of intracerebral amyloid beta.

— Professor Koji Suzuki's Motto —
There is always an interesting discovery there, if you immersed in-work.
Looking one step ahead is just right...



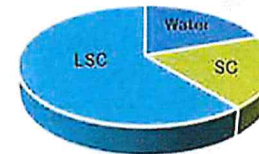
※ Professor Koji Suzuki of Suzuka University of Medical Science had present on various research reports at the Japanese Society for Medical Use of Functional Food

※ Professor Koji Suzuki was awarded many prizes including Boehringer Ingelheim Award (2008), Minister of Education, Culture, Sports, Science and Technology award (research department) (2010), International Thrombosis Hematology Society Prize (2005, 2011).

Anti-tumor action of Lactobacillus Fermented Sparassis Crispa

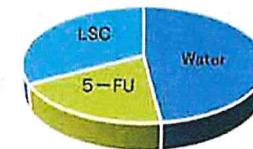
■ Blood IL-6 concentration, Tumor tissue volume and Apoptotic cells in cancer mouse

② Identification of Apoptotic cells in Tumor tissues on day 21 after administration of Lactobacillus Fermented Sparassis Crispa Extract



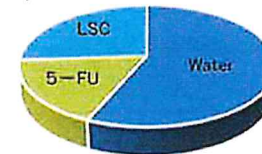
Lactobacillus Fermented Sparassis Crispa (LSC) increased Apoptotic cell death by about 3 times comparing to drinking water.

① Effects on the volume of Tumor tissue on day 21 after administration of Lactobacillus Fermented Sparassis Crispa Extract



Tumor volume was about 30% lower in Lactobacillus Fermented Sparassis Crispa (LSC) than in drinking water.

③ Effect of blood IL-6 concentration on day 21 after administration of Lactobacillus Fermented Sparassis Crispa Extract



Concentration of Blood IL-6 was about 50% lower in Lactobacillus Fermented Sparassis Crispa (LSC) than in drinking water.

- ① Suppression of Tumor growth in colon cancer cell-inoculated mouse was inferior to subcutaneously administered mouse of anticancer agent 5F-U, but in LSC-administered mouse, significant suppression of Tumor cell growth and decrease in blood IL-6 concentration was observed.
- ② Lactobacillus Fermentation Sparassis Crispa Extract promotes the killing of tumor cells by increasing Apoptosis (programmed cell death).
- ③ IL-6 (interleukin-6) is one of the cytokines controlling humoral immunity. Lactobacillus Fermentation Sparassis Crispa Extract reduces the blood level of IL-6 which is involved in autoimmune diseases, inflammatory diseases such as rheumatoid arthritis, Skeletal muscle disorder of myotonic dystrophy.

Homeostatic function by Sparassis crispa!
 People enjoy a more healthy life with bio-function improvement.
 Power increase

The good news continues

Sangakukan Kyodokenkyu report (IT-Sparassis crispa project)

Sparassis crispa as a substitute for female hormone (silent estrogen)

(INTERTRADE Co.,Ltd.)

At last, he creates "The one and only" in the world!

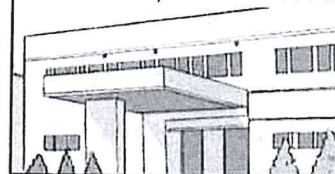


構成 朝戸 りょう
 まんが 白神 徹
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 制作 (株)美健ガイド社 ©
 印刷製本 まつざき印刷(株)

2018年2月26日

落丁本・乱丁本はお取り替えます。禁無断転載。
 1802(548) 定価(本体400円+税)

Moreover, they passed the safety exam of the Japan Food Analysis Institute and won a patent for Sparassis crispa fermented by lactic acid bacteria.



It was confirmed that Sparassis crispa fermented with lactic acid bacteria is effective for cancer, articular rheumatism, Alzheimer's disease, Autoimmune disease.

Thanks to everyone's effort. I made a hard time for everyone.

I fulfilled the dream of 18 years.



They thrive at pH 2.2!
 A marvelous Lactic bacteria. It's DNA identifies it as a new species.

