

# The Birth of Orize

"Passing on the Culture of Fermentation" Series No. 1  
by Zenuemon Ohba

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## **Chapter 1 - Fermentation, an Ancient Japanese Food Culture**

The Japanese word *hikko* derives from phenomena such as the way grape juice bubbles and froths, like boiling water, finally turning to an alcoholic liquid, or the way that yeast can be added to flour and kneaded, swelling to become bread. In English, this is fermentation, which itself derives from the Latin word *fervere*, which means "to boil." In ancient times, people believed in a divine power that allowed fermentation to turn one foodstuff into another, delicious one.

In the *Kojiki* (Record of Ancient Matters), the oldest history book in Japan written in the early Nara period, there is mention of a type of saké made by chewing rice. The amylase in human saliva is capable of breaking down starch. In other words, the art of mixing saliva and rice together to create saliva has been known in Japan since pre-historical times, and fermentation has been recognized as a mysterious power.

It has only been relatively recently that science has explained the phenomenon of fermentation as due to the action of mold, yeast and viral yeast. There are still some parts that have not been fully explained, however, because fermentation is a living phenomenon that changes daily, with diverse enzymes interacting organically in a synergy of life itself.

Leaving the scientific matters to the scientists, however, people have known the delicious flavor of fermented foods since ancient times, even without memorizing the molecular structures or other details. They are everyday foods encountered in every meal. For example, Japanese saké, soy sauce, fermented *natto* beans, pickles and more. All of these foods are made by fermentation. Raw ingredients such as rice, wheat and beans are used to make foods like saké, fermented *miso* bean paste and soy sauce by steaming and other processes promoting fermentation, including rice malt and yeast. Fermentation causes a dramatic change in the food, turning it into something else entirely.

Rice malt, yeast or lactobacillus, for example, are essential for fermentation. Rice malt is needed for Japanese saké and *miso*, and works by allowing malt bacteria from the air to act on steamed rice or wheat. Malt bacteria produces organic acids including kojic acid and gluconic acid, along with protein-digesting enzymes including amylase, maltase and cellulase. The action of amylase, which breaks down starch, is used to create a variety of malts for different purposes, such as saké, sweet saké, *miso* and soy

sauce.

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Yeast breaks sugars down into alcohol and carbon dioxide gas. The froth that appears on the surface of the liquid during the fermentation of alcoholic beverages is due to the carbon dioxide gas produced by the yeast. There are many kinds of yeast, however, such as saké yeast, beer yeast and wine yeast. Baker's yeast is used to make bread.

Lactobacillus is also important. This bacteria breaks sugars down to make lactic acid. In addition to the animal-based lactobacillus used to make yoghurt, for example, there are also plant-based varieties found in *miso*, soy sauce and kimchee. The lactobacillus found in the human intestine, recognized as "good" bacteria, has the same activity.

Rice malt, yeast and lactobacillus are able to make foods taste delicious, and break down materials through fermentation to make them easier for the body to digest... the perfect combination for health. We were founded sixty-two years ago on the recognition of this fact, and especially on an appreciation of Japanese fermentation culture and enzymology.

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## **Chapter 2 - The Birth of Orize**

Orize was created by my father, who founded the company, Hachiji Ohba.

My father was born to a village headman living at the base of Mt. Kagami in Saga Prefecture, the third of six brothers. My grandfather, however, had lost his home and all his land. According to family history, a person from the local government office had come on the day before the harvest and pasted a red label on them all, marking them as confiscated. My grandfather was devastated, and died soon thereafter, and as my grandmother was already dead by that time the six children were left alone. Everyone had to eat, and so as soon as he entered elementary school my father began working on a farm, reducing the number of mouths to feed at home. He wanted to study but was unable to attend elementary school, spending his days in field labor. When he turned fifteen he made up his mind and traveled to Osaka. He didn't know the first thing about fermentation, of course. So how did he learn about fermentation and create orize? To explain that, I will have to explain a bit about my father.

When my father traveled to Osaka with no one but himself to rely on, he became an apprentice under Musashi Tsukuba, a master of *rokyoku* (a type of Japanese storytelling to the accompaniment of a samisen).

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Poster for a show by the founder of Orize Honpo

Hachiji Ohba

(Utaemon Omiya)

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*Rokyoku* can be divided into three historical periods. The first lasted from the middle Edo period through early Meiji and is called *chongare*. The second phase lasted until the end of the Taisho era in 1925, and the third phase was the Showa era, with the birth of radio broadcasting. According to a survey of radio program popularity in 1932, the most popular program was *rokyoku*, holding 57% of the total, followed in descending order by stories, *rakugo* comics, human interest stories and popular songs. My father was born in 1915 and moved to Osaka when he was fifteen, which was at the height of *rokyoku* popularity. He studied under Musashi Tsukuba, and took the

stage himself under the name Komusashi. As Komusashi he penned a number of original scripts including *Life of Mahatma Gandhi* and *Life of the Monk Shinran*, pioneering a new genre of literary *rokyoku* to join the diverse types which already existed, including tales of heroism, of battle and of human interest.

I always listened to my father's fascinating stories, and when I visited Osaka myself years later I heard tales from people who knew him there. His boasts and stories were all true, it turned out. His style of literary *rokyoku* proved quite popular, and his performances were crowded.

Apparently the people of Osaka and *rokyoku* mixed well, because during his time in Osaka my father was always so alive and vital. He was active throughout the Dotonbori and Tsutenkaku districts, wearing his leather boots. He had a strong sense of responsibility and humanity, and was bold as well. I heard once that he had his appendix removed with no anesthetic. At the same time he was also a man very in touch with his emotions, as evidenced by the way he single-handedly created literary *rokyoku*. Under the nickname of "Taiko of Osaka," he was well liked.

There is a saying in Japan that knowing an art or skill will help you in life, and it proved true for my father. Among his fans was a woman from Nagasaki, who ran a café in Osaka. Operated like an expensive members-only club, the café was frequented by military officers and various celebrities. The woman liked him so much, in fact, that she eventually adopted him, and he later married.

One of the people who frequented the café was Earl Takanobu Washio, and this man later gave my father the new name of Utaemon Omiya in place of his name as Komusashi. The new name was a request to "retell your stories like singing out under the *torii*." The Earl also made it possible for my father to meet Professor Shoji Katayama of Osaka University's Faculty of Agriculture, an expert in fermentation.

The woman who ran the club was married to the president of a certain saké manufacturer, and as my father continued his *rokyoku* performances he also was selling saké. As Japan headed toward war in the late 1930s, various goods became scarce in Japan, and liquor was rationed. Liquor sold extremely well, and my father became quite wealthy. As a result he was able to fund research into fermentation by Professor Katayama, cementing their relationship.

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My father spent his childhood working on the farm, unable to attend school, and so was powerfully drawn by Professor Katayama's laboratory and the library at his

home. The professor warmed to my father as they met frequently, and taught him the basics of fermentation science. I have heard that my father was astonished to see the beautiful flower-like forms of malt bacteria when he peered into the microscope.

During World War II my father lost his first wife to tuberculosis. He felt that if he had only begun studying fermentation sooner, he could have saved her, and devoted himself to his study. It is possible that the only time he could forget his sadness and loneliness was when he was auditing classes under Professor Katayama, or working as a laboratory assistant there.

The name "orize" is derived from the scientific name for malt yeast, which is *Aspergillus oryzae* NK.

*Aspergillus oryzae* NK uses the power of enzymes to convert starch into glucose, facilitating digestion by the intestine and helping beneficial bacteria multiply there. Cumulatively, these actions help maintain a cleaner intestinal tract.

It is impossible to overlook the superlative qualities of bacilli like those found in fermented *natto* beans, *miso* and soy sauce. Lactobacilli like these help our bodies maintain and improve disease resistance.

He mixed dokudami (*Houttuynia cordata*) with some of the digestive enzymes (amylase, protease, etc.), malt bacteria, yeasts or lactobacilli he learned of from Professor Katayama and succeeded in producing a health-promoting enzyme which could be cultured stably. At that time granulation technology did not exist, and it was produced as a powder.

Naturally, people would not immediately start taking his concoction. At the start, he seems to have used it as a nutritive supplement to bring vitality back to animals like cows and goats that had been exposed to high doses of Folidol, an insecticide. When he administered it to the animals, excretory action and appetite improved, and they soon regained their health. In fact, not only did they return to health, but goats began producing more milk than before, and one even won grand prize at a milking competition of the time.

Now confident in his invention, my father continued to improve it to perfect "Nutritional Orize," that anyone could drink safely. He manufactured it himself and began selling it himself under the catchphrase "For a longer life."

Our firm celebrates its sixty-second anniversary this year (2006), dating from the first known sale of Orize on Ma 16, 1944 by my father in Osaka. We suspect that the actual date of first sale was a bit earlier, but in any case Orize rapidly gained market share

through word of mouth.

Japan was in the middle of World War II at that time, and as the nation prepared for the expected invasion of the Home Islands by Allied forces and foodstuffs became scarce, it wasn't at all clear that a nutritional supplement like Orize would sell. As it turns out, however, poor nutrition was causing much sickness, including children dying of malnutrition or people lacking sufficient resistance to tuberculosis. The population of Japan needed the enzymes of malt bacteria, yeast and lactobacillus, and their strength.

On March 10, 1945, American B-29 bombers destroyed Tokyo, following by Nagoya on March 12 and just before dawn on March 13, Osaka. The city was destroyed by fire. The war ended on August 15. Standing in the ruins of Osaka, my father's mother-in-law advised him to return to Kyushu and start a new life. She told him to stop grieving over his lost wife, and, because he was still young, remarry and start a new family.

While she advised him to leave Osaka, she herself refused to leave the city.

My father set forth on his journey, carrying only Orize with him to his birthplace in Saga. In the post-War turmoil, my father married my mother, from Nanayama Village, and I was born to them as their first child in 1948.

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Photograph showing my father (front row, second from right) and my mother (far left), dated January 1, 1949.



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### **Chapter 3 - Philosophy of the Founder**

Orize was created by the founder of the company, my father, Hachiji Ohba.

My father was an active *rokyoku* performer while he lived in Osaka, and under the name Komusashi and later Utaemon Omiya he introduced the new genre of literary *rokyoku*, as I have already described. Among his original performances are scripts for *Life of Mahatma Gandhi* and *Life of the Monk Shinran*.

Mahatma Gandhi (1869-1948), as you may already know, was a truly great man, praised as the father of modern India and the greatest Indian since Buddha. Mahatma means "great spirit." Born in a strongly religious household, he was heavily influenced by his mother, whom he described later as full of mercy and gentility. He married at the age of thirteen, traveled to England at the age of eighteen for study, and after being licensed as an attorney traveled to South Africa and took part in a non-violent protest movement with other Indians there. He became overly involved in his private life and was unable to reach his father's deathbed in time, however, and this weighed upon his mind. After numerous failures he adopted the ascetic life at the age of 37.

Gandhi battled for complete independence for India from Great Britain, but for the purpose of self-determination by the Indians. In India he battled against the nation's bitter caste problem, and sought to achieve a national unity by ending conflict between the Hindus and the Moslems. He was imprisoned dozens of times during his life, but resolved many of the problems he faced through hunger strikes. His stance of non-violent protest (civil disobedience) had an enormous effect on people worldwide. His statement "It is impossible for one to be internationalist without being a nationalist... I do want to think in terms of the whole world. My patriotism includes the good of mankind in general. Therefore, my service of India includes the service of humanity." is famous.

The monk Shinran (1173-1262), on the other hand, is known as the founder of "True" Pure Land Buddhism. Leaving home at the age of nine, he spent the next twenty years at the monastery on Mt. Hiei. At the age of twenty-nine, feeling that the pure principles of Mt. Hiei had become corrupted, he left to become a disciple of the monk Honen. He was later sent to Echigo (present-day Niigata), where he married. Shinran believed that monks should live among the people, eat meat and marry. He wrote

"Nembutsu repetitions are all prompted by a joyous gratitude toward Amida Buddha for the compassion that has now saved them," and many scholars have pointed out that while this appears simple it is far from it. Shinran lived to the age of ninety.

I do not know how my father encountered Gandhi or Shinran, but my father was always a straightforward, sincere man, and I believe that he must have been affected strongly when he read of their lives. Gandhi and Shinran shared a deep love of humanity, with hearts that felt for the ill or the oppressed, whether the poor, children, women or others. I feel sure that he must have written scripts based on the stories of their lives to show, in part, his desire to live as they did.

Although a *rokyoku* performer, my father encountered Professor Katayama, and through him, fermentation. He learned about enzymes, crucial to living organisms, and how the creation of enzymes can help us. He devoted the rest of his life to Orize without regret.

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### "The Customer's Joy is Our Joy"

To say the same thing in a different way, we are happiest when we make other people feel happy. This was the philosophy of our founder, and it has remained our motto, unchanged, ever since.

Our factory has relocated several times, from Osaka where it all began to Karatsu just before the end of World War II, and then to Hamatama-machi, known for the Niji-no-Matsubara pine forest. The name remained Nutritional Supplement Orize Manufacturing.

When I was born in 1948 my father named me Zenuemon, and changed the name of the business to match: Ohba Zenuemon Store. In other words the business used my name from my birth, and I became the legal representative. The name Zenuemon is somewhat old-fashioned, like something out of a *rokyoku* performance, but my father explained that he had taken it from the name of one of the names used by the heads of the Konoike group, one of the three major *zaibatsu* in pre-War Japan. I always hated my name, but I've grown used to it now. People remember it quickly, and I am grateful to my father for giving it to me.

When I was about two years old I almost died from dysentery. The ceiling spun, and I suffered with a high fever, diarrhea and vomiting, but my parents nursed me through

it safely, staying by my bed day and night.

They must have given my Orize, determined to save my life and restore me to health, happy with my improvement and again amazed at the power of Orize.

## Unshakeable Confidence and Trust in Orize

My father had complete confidence and trust in Orize, and that is why he was able to give it to me, his firstborn, to save my life. To make sure that as many people as possible could benefit from Orize, my father traveled throughout Japan selling it, unable to rely on the uncertain transportation system in the years after the War.

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*Rokyoku* Performance on Sales Tour for Orize in the Early Years (about 1955)

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Believing that a learned skill remains useful in life, he gave traveling performances of *rokyoku*, followed by explanations of the benefits of Orize, and would cheerfully visit anywhere in Japan if invited. His traveling show was joined by performers offering *manzai* (stand-up comedy), dance and magic, with my father assuming the role of manager as well.

The family left at home faced numerous difficulties, however. When my father sent us a message asking us to send a shipment of Orize we would pack it carefully, transport it to the train station in a handcart, and send it by rail parcel. Repeat orders were sold by mail, and delivered by postal parcel. I think we may have been the first company in Japan to offer mail order. Even though I was still a boy, sometimes I delivered orders by hand.

The performances were given at temples or community halls, and sometimes at the new civic centers being built around Japan. He even gave a performance at Nishi-Honganji Temple in Kyoto. So many elderly people crowded into the room before the show began that it was standing-room only. Sometimes we would received tear-stained letters of appreciation from customers, thanking us for Orize and restoring their health. My father, confident in the value of Orize, no doubt expected these letters as perfectly natural, but I'm sure they encouraged him to continue his travels. As a child I loved to read those thank-you letters.

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I was born almost at the same time as Orize, and so it was only natural that I should follow in his footsteps. When I was a senior in high school I found out about a machinery exhibition to be held in Osaka (I think from a book), and attended it. On my own recognizance I purchased a machine that could granulate Orize. Orize powder, which was all we had at that time, would change its characteristics in response to humidity or other environmental conditions. It wouldn't spoil, but the fermentation would advance too far, too fast. I think that even as high school student I was very concerned with stabilizing quality. My father was not angry at my unannounced purchase.

Eventually the elderly stopped coming to his shows. As Japan gradually became wealthier due to the economic boom at the time, the elderly discovered other amusements such as television, croquet or travel to spas, and often chose them instead of going to see a *rokyoku* performance. I suggested to my father that it might be time to stop being a traveling performance/salesman, but he refused to listen. He still had confidence in his own ability as a performance, and in Orize.

When he was about fifty he experienced both mental and physical stress on the road, and his health suffered. He was in great pain, claiming that it felt like someone was stabbing him in the back with an awl, but recovered completely by drinking large quantities of Orize, and stayed healthy thereafter. He experienced for himself the efficacy of his product.

He finally only accepted the situation and stopped his traveling shows about a decade ago. He passed the secrets of Orize manufacturer on to me alone, and I launched a mail order business to replace his traveling sales. With the confidence from my father and the strength of Orize, I worked together with my wife Sayuri while caring for my father. He died in June 2005, at the age of ninety one.

Until the very end he continued to ask me to make sure that as many people as possible could experience Orize, confident that the results would be good. He was unable to fully realize that dream himself, but I am confident that it will be realized one day.

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The Niji-no-Matsubara Pine Forest

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### **Chapter 4 - The Home of Orize: Hamatama-machi and Nanayama**

Hamatama-machi, Karatsu City, Saga, where we are located, is in the middle of the Genkai National Park, home to the beautiful Niji-no-Matsubara pine forest and facing out over the water of the Genkai Sea. The Niji-no-Matsubara pine forest stretches along about six kilometers in the center of the sandy Genkai Sea coast, with a depth of from four hundred to six hundred meters, and its million black pines have earned it a place as one of the three greatest pine forests in Japan. The forest has pine trees over a hundred years old, and stretches from right next to our site all the way into downtown Karatsu. The white sands and beautiful greenery of Hamatama, with its rich natural environment, is an irreplaceable treasure.

Nanayama Village is another home for Orize.

Nanayama Village is located to the east of Hamatama-machi, and is surrounded by the peaks leading to the Sefuri-Tenzan range. There are seven peaks here exceeding 500 meters, including Mt. Kokuchi (893 meters) and Mt. Ukidake (805 meters), and the village is centered along the Tamashima River flowing between the mountains. Passing through the center of Nanayama Village, through Hamatama-machi and into the Genkai Sea, the Tamashima River has been known since ancient times, as evidenced by the legend that Jingu Kogo caught sweetfish here.

Jingu Kogo was the wife of the Emperor Chuai, ruling as regent after Chuai's death at the Kashiigu in Fukuoka, and later commanding the invasion of Silla Korea. She is well-known for having given birth in Chikushi, Fukuoka. Before she crossed the sea to Korea, she pulled a thread from her own robe and used it as a fishing line in the Tamashima River, hoping to foretell the success of the war. She caught sweetfish with it, and the Chinese characters for "prophecy with fish" were combined to form the character for sweetfish because of it. In respect for Jingu Kogo, only women were allowed to fish for sweetfish in that river until about the Meiji Era.

Be that as it may, the clear river water flows in abundance, with many tributaries winding through the mountains in streams and waterfalls. Nanayama Village is a forgotten paradise, in the enfolding arms of nature.

When my father returned here from Osaka after the War, his second wife (my mother) was from Nanayama Village, as is my own wife, Sayuri. I myself was born in my mother's childhood home, which was in Nanayama Village. Nanayama Village is now

a part of Karatsu City, following the amalgamation recently, but we still refer to it as Nanayama Village.

My mother's home was located deep in the mountains, in a small grouping far from the center of Nanayama Village. My great-grandfather was the first mayor of the village, and the man who named it. The house was an enormous one, with perhaps 650 square meters of floor space on two floors, built on a stone foundation, and I recall that the Japanese-style formal room was a step above the level of the living room. Every spring and summer vacation I would ride the rocky bus to her home there. I loved the natural environment, of course, but also the warm welcome that my grandmother and grandfather gave me. I loved the warmth and friendliness of the people of the village, too.

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The Tamashima River Flowing through the Mountains

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I mentioned above that Orize is packed full of a type of malt bacteria named *Aspergillus oryzae* NK, bacilli related to the *natto* bacillus, and digestive enzymes such amylase and protease. These and the hundred or more types of malt, yeast and lactobacillus bacteria are mixed with aloe and dokudami (*Houttuynia cordata*) cultivated in private gardens in Nanayama Village, the mixture cultured through our proprietary manufacturing method to ensure stability, and granulated.

At present these gardens are located in Nanayama Village alone, and they are not very large in area. In the future, however, as soon as possible, we plan to relocate our plant to Nanayama Village. The blueprint for the new plant is already complete, and we plan for it to include a special culturing chamber, called a *muro* in Japanese, to warm malt and other microorganisms while protecting them from the outside air. I am confident that we will bring this plan to fruition.

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### **Chapter 5 - In Search of True Worth**

Our meals in the modern world are drowning in additives and synthetic foods, leaving our children no future. There are too many parents who ask their children what they want to eat. If parents tell their children, with confidence, to eat a particular food to avoid malnutrition, nervous children will regain their calm and grow gentle. By preparing food together, and going together to see how vegetables grow in the fields, conversation will be born. The starting point is for parents to be confident.

In today's world more and more people turn to multi-purpose vitamins or supplements such as glucosamin and coenzymes, worrying about their health. It would not be an exaggeration to say that supplements are a sort of fad. There are about 20,000 types of supplements, however, and many people become confused by the sheer quantity and remain unsure of what to take. Because they cannot decide, they end up taking many different types of supplement. Few people know that about 98% of those 20,000 types of supplements are actually synthesized chemically. I cannot help but feel that the Japanese people are losing their traditional wisdom by relying too heavily on the jingles and discoveries presented in commercials.

Wisdom is what our grandparents knew about living, about how to minimize waste, preserve foods for long periods of time, and enjoy delicious food. I do not feel that I am teaching other people about Japan's ancient and excellent fermentation tradition, but rather passing it on to future generations.

The media often talks of foods that are natural, or authentic, and it is my hope that all foods will once again be natural, as a matter of course. Together with the other people who are working to bring natural foods and traditional wisdom back to our additive-drenched modern meals will carry on the ideals of our company's founder.

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View of Nanayama Village and Mt. Ukidake

**Orize Honpo Co., Ltd.**

**President**

**Zenuemon Ohba**

When I was still a schoolboy I would come home from school, throw my cloth schoolbag into the house, and run outside to play barefoot. Mt. Kagami, the Tamashima River and the seas off the white sands of Karatsu were full of things to do all year round. I loved the taste of the fresh vegetables and fruit in the fields around harvest. My mouth would be filled with the delicious flavor of fruit or vegetables, and my nose full of the delightful smell of the fields and the sun. How happy I was then, going home in the dusk with my scrapes.

When I returned home, tired from playing, I would find a bowl of rice with wheat and another bowl of homemade *miso* soup packed with vegetables. Our menu commonly included foods like broiled fish, clams from the beach, homemade pickles, and *okara* (leftovers from making *tofu* bean curd) with white whale meat in place of the *tofu* bean curd we couldn't buy. Eggs and sweets were rare treats. Sometimes I would be delighted by a dish of curry rice with red whale meat. We were poor but healthy and unworried about our health. Back then, we never even used the word "health."

Today everyone is unhealthy. Babies are born with hardened arteries and reduced body temperature, and cool off even more as they grow older, like reptiles. Many children with reduced immunity to disease suffer from a variety of "living style" diseases from an early age. Difficult-to-cure diseases seem to increase together with progress in medicine and science. I think the time has come to consider once again the life that the Earth has given us.

Enzymes are the origin of life, assisting in digesting and fermenting food and closely related to excretion and bodily internal cleansing. They help keep us healthy. Over sixty years after the birth of Orize, this is the first time I have ever discussed by father, or times prior to the creation of Orize. I hope you enjoy my work.

With the publication of this document I am determined more than ever to work toward safe foods and health promotion, especially through our core product: Orize.

"The Customer's Joy is Our Joy"

We look forward to continuing to serve you in the future.

October, 2006



"Passing on the Culture of Fermentation" Series No. 1

## **The Birth of Orize**

October 20, 2006

First edition

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Traditions of health from fermented foodstuffs  
Orize Honpo Co., Ltd.  
Founded 1944

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