エンリッチド・養豚
Improved Pig-Keeping

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Hello everybody. I am Katsuhiko Toyoshita and I farm pigs close to the side of Lake Toyoda Akita Prefecture, [Japan].

Our pigs are sold in the market under the brand name of "Momobuta" (literally, "Peach Pig"). We started our farming operation in 1995 and the operation currently consists of three farms plus an industrial waste processing company. In 1995, we began operating Porkland and Kosaka Clean Center, and in 1997, we opened Towada Ko Kogen Farm. Then, last year, we started up a farm called Farmland. At the three farming facilities, approx. 120,000 Momobuta are produced and shipped each year. We are an ordinary corporate pig farming operation with 4,800 sows. [Slide 1]

To go into a little more detail, Parkland and Kogen Farm are basically windowless piggeries that are operated as ordinary corporate pig farms. By contrast, at Farmland, pig fattening is carried out in a way that takes in European animal welfare ideas. Later, Professor Kohari will be giving an introduction to our farm, but I would also like to talk a little about how the farm is operated. [Slide 2]

We run the farm under the motto of "Let's be happy doing agriculture" and we also place emphasis on "coexistence and co-prosperity", "healthy seasonal and traditional local food", and "agriculture in which the producer is visible". [Slide 3]

Currently, we are employing about 108 agricultural non-specialists who are working for us in a "salaryman" style, and we are moving ahead with the construction of a system to allow such newcomers to work in the agricultural sector. [Slide 4]

In running our farming operations, we basically center our thinking on local circulation and resource circulation, etc. For example, at the Clean Center, we make compost from raw garbage produced by people in the local area, thereby avoiding the need to incinerate this waste. Local farmers make use of this compost. The process is carried out under the idea of maintaining a local circulation system that includes organic growing. [Slide 4]

Our pigs are the National Federation of Agricultural Cooperative Associations' 'SPF' pigs, [slide 5]. The breeding pigs brought into our farms are from an ancestral variety pig-breeding farm in Kamishihoro, Hokkaido, a similar pig-breeding farm in Shizukuishi, and a pig-breeding farm in Akita. No other pigs have ever been mixed in with these breeding pigs. With this, we are making efforts to promote traceability, as a result of which we have become the first pork producer in Japan to obtain JAS certification for traceability of our production records. We have also been certified under the NFACA safety system.

At our farms, even from the beginning we have employed two conflicting technologies, [slide 6] namely the sterilization and antibacterial production technology called SPF, which is carried out by NFACA, etc., and the live bacteria technology known as BMW (Bacteria Mineral Water). Through this, we are trying to make our pigs strong from the inside without recourse to drugs as far as possible, and to raise the pigs' immune strength using a system of not permitting any disease to be brought in from the outside, [slide 7]. Basically, in our production system, we don't add antibiotics or synthetic antibacterial drugs to the pigs' feed. We have continued to operate in this way ever since 1995.

Our company's employees are almost all non-specialists. Before I starting in this business, I myself had no

previous experience with pigs either. I was originally a JA worker, but as a result of a reorganization of slaughterhouses in the northern area of Akita Prefecture, a JA-financed slaughterhouse called Meatland came to be constructed in my local area, necessitating an increase in pig production. Accordingly, I was involved in the construction of a new NFACA SPF farm in a variety of ways. But then I retired from JA.

I was not involved in any processes from the halfway stage or in piggery design, but in running the farming operation I worked very hard and followed the established methods and rules. Later, Mr. Kuwajima of Pal Meat will be talking on this and related subjects, but we had an encounter with Pal Meat and I became acquainted with many people including the producers' cooperative organization, consumers and others. Through this, I began to entertain various doubts about the production method I had been engaged in up until then.

Firstly, I feel that modern-style pig farming is production merely for the convenience of people. In contemporary pig farming, production is focused on productivity, which entails spending a lot of money on such things as electricity for windowless piggeries. This kind of production is aimed at preventing the development of diseases in pigs by keeping them in a way that is easy to manage, keeping them at such a high density that they are unable to move around freely, and administering lots of drugs as I mentioned earlier. I feel that piggeries of this kind are akin to prisons. The temperature inside these piggeries is strictly controlled by blocking off the sunlight as much as possible, and they don't provide the sort of environment that pigs like. The farmers give them no opportunities for digging holes, running around or bathing. So I question whether it is right to keep pigs in this way.

By providing the sort of living environment that pigs like, we can help ensure that the pigs live more comfortably in keeping with the sentiment written on this slide, "Make people and pigs happy together", [slide 8]. I feel that the system introduced here does precisely this.

Next year, under the banner of "To a nostalgic future, back to the source," we will reconstruct the interior of our farms anew, [slide 9]. In preparation for that we have been introducing new piggery systems such as pasturage and biobed (fermentation floor and semi-pasturage). I am going to tell you a little about this in the last part of my talk. We are aiming to expand our "no-farm" in the future. Of course, this should be a low-cost piggery in many ways. For example, it will be constructed at low cost and it will also employ a low-cost management system with low running costs and minimal use of electricity. [Slide 10]

This picture [slide 11] shows the biobed and pasturage system we are using now. This biobed piggery was constructed in 2003. First of all, it was constructed in this way, and then the fermentation floor was heaped up to about 1.5 meters, which gave it this shape.

Two years later in 2005, we had this dome, [slide 12]. This sort of snow-resistance dome is used in Antarctica, etc. And compost is used in making the fermentation floor.

This was made in 2006. This piggery houses about 600 pigs. It was originally a compost depot, but we reformed it into a piggery. Since then, we have successively changed the material of this. 2008 marked the sixth material change period.

During this period, for the biobed floor material, we used sawdust or rice husks, etc, and to get fermentation going we added various things such as lactic bacteria, bacillus natto, lactobacillus fermentum, etc. We use this material as a floor material for our piggeries.

Another thing is pasturage, [slide 13]. Our land area covers approximately 70 hectares. We have made pasturage for 1,600 pigs using previously vacant land. When you look closely at this you can see that the line weeds disappear within three days. Pigs have an enormous ability to reclaim land in this way.

At the moment, we are trying out four kinds of management. These are ordinary windowless piggery management, management in groups of 400 pigs by eliminating fences, biobed management using fermentation floors in groups of 400 pigs (semi-pasturage), and pasturage. From this year, Pal System is selling pork produced by pasturage and biobed management on a trial basis under its own name as a brand that is challenging the issue of animal welfare.

Also from this year, we are trying to carry out animal welfare from breeding to delivery on a consistent basis, [slide 14]. We are planning to try out around 300 piglets using a system that uses a slightly reformed existing piggery and the biobed system I mentioned earlier on an experimental basis.

In the course of our attempt to raise our production from the present 120,000 pigs to 320,000 pigs annually, we are going to employ this kind of animal welfare approach all over our farms. Under these circumstances, all in all, pig production will be the key issue, and we wish to produce an additional 200,000 pigs under pasturage, mainly using biobed management. A major but basic concern often voiced is that pig production efficiency will decline under pasturage, but this will not happen. It may have to be done in a roundabout way, but I think the additional production will be possible without loss of productivity, [slide 15]. Not only that, in keeping with what was written about making people happy, those on the keeper side can get a very happy feeling by employing animal welfare-oriented pig rearing that includes using such pasturage. So rather than a major concern, this is a happy result for us, and in future, while proceeding in this way, we intend to promote this system so that it becomes our mainstream pig raising system. Thank you very much for listening, [Slide 16].

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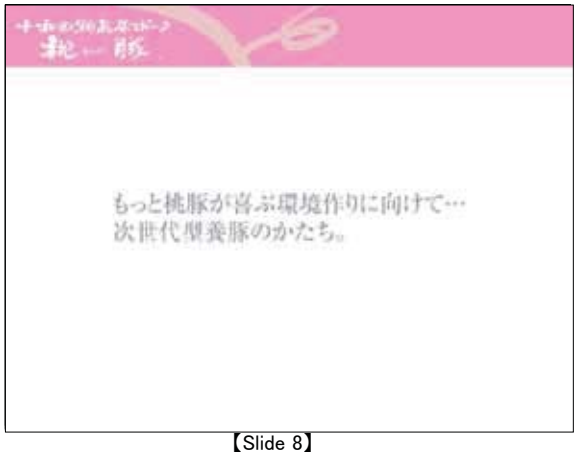

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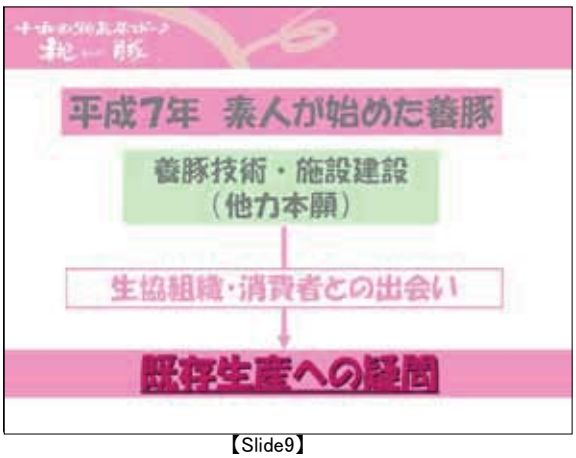

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