

EntryNO8 Kanna Tabata

A New Feed Idea to Invigorate the Livestock Industry.

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I am Kanna Tabata, from Nagano Prefecture Kamiina Agricultural High School. Thank you for having me today. Today, I will be talking about "A New Feed Idea to Invigorate the Livestock Industry."

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At school, I am gaining a fundamental knowledge of animals through my classes, and I am deepening my learning by engaging in practical training and problem-solving activities.

By the way, everyone, are you aware that the world population is rapidly increasing right now? I didn't know that until I entered high school.

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To be specific, please look at this slide. This shows the projected increase in global livestock production by 2050. As you can see, due to the effects of population growth, a significant increase in livestock products will be required by 2050.

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However, due to the situation in Ukraine, foreign exchange rates, and soaring transportation costs, the price of raw materials for feed is skyrocketing globally.

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In Japan as well, the price of mixed feed made from these raw materials is rising sharply. This price surge has become a major concern and challenge for livestock farmers.

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Therefore, to solve this problem, we focused on "spent mushroom substrate!"

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Mushrooms contain many nutrients, and in recent years, "kin-katsu," the practice of consuming beneficial fungi to improve gut health, has been gaining attention.

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Regarding mushroom production in Japan,

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our home, Nagano Prefecture, holds the number one spot in the country.

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However, as the demand for mushrooms increases, the amount of spent mushroom substrate with nowhere to go also continues to increase.

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To solve these issues, we launched the "Mushroom Spent Substrate Feed Creation Project" and have been working for the past three years to reduce feed costs and build a sustainable production base for the livestock industry.

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From our three years of research, we discovered that by fermenting spent mushroom substrate with lactic acid, it can be turned into livestock feed. Furthermore, we obtained results showing that cattle can expect the same effects as humans who consume mushrooms, such as improved liver function and lower blood cholesterol levels. The result was a feed that exceeded our wildest expectations.

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These research results and our efforts were recognized with the Director-General's Award of the Minister's Secretariat at the "First Green Food System Strategy Student Challenge" held this past March. Our work is being evaluated highly in many fields. "I want to spread this technology." To achieve these goals, I came up with a business plan.

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My business plan is simple. We receive orders from livestock farmers and then order spent substrate from mushroom farmers. We process it into feed and sell it to the livestock farmers for 5,000 yen per ton, plus shipping. The price was set not for our company to make a large profit, but to establish a mutually beneficial price that helps build a sustainable production base in the region.

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Based on our school's research, in the case of a breeding farm, this results in a cost reduction of approximately 3,165 yen per head per month. For nine head over one year, that's a reduction of about 341,820 yen. This amounts to an estimated 84% reduction in feed costs, including fixed costs.

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If just 1% of Japan's livestock farmers were to substitute the feed for their breeding cows with our mushroom spent substrate feed, it would lead to an annual feed cost reduction of about 2.4 billion yen. While breeding farms could replace the entire amount, for fattening farms, we recommend using it as a feed additive. We believe there is demand for it due to its ability to contribute to the healthy fattening of Wagyu beef.

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In fact, as of last year, we have obtained a manufacturing permit from the national government and a sales permit from the prefecture, and we are actually selling this feed. It is currently being used at a rate of 1200 tons across five prefectures, centered around Nagano.

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In Toyama Prefecture,

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we have also received positive reviews from Mr. Aonuma, the Representative Director of CloverFarm Co., Ltd.

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We are also beginning to apply this not just to cattle, but to other livestock as well.

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This feed is needed now more than ever. We sincerely ask for your support!