Investors' Meeting for the Business Strategy of the Health & Crop Sciences Sector Q&A Summary

Date and Time: Thursday, October 11, 10:00 to 11:15 a.m.

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Representative Director & Senior Managing Executive Officer

Macro Environment

- Q. As you explained earlier, the crop protection market has been very severe over the past several years, and I think it is partly because of the economic situation in Brazil. Could you explain the circumstances for each of your main products? In addition, although the market for crop protection chemicals was trying to recover in 2018, I assume the trade friction between the US and China will have an impact on the grain markets. How are you viewing the macro environment?
- A. The impact of trade friction between the US and China will likely affect business next year. In other words, it will affect our shipments in the second half of the current fiscal year. Looking at the macro environment for the crop protection market, the market peaked in 2014 and 2015, and then declined a bit in 2016. In particular, there was a sharp decline in Brazil. We believe it is a slow-down caused by the economy, weather, and inventory.

In addition, in North America, grain prices are sharply declining and there is a trend to use the cheapest possible crop protection products. That has caused an increase in sales for companies selling off-patent products. That said, however, the prices of generic crop protection products are rapidly increasing because of the tariff issue between the US and China as well as environmental policies in China.

Although it is difficult to foresee what impact these issues will have on the current crop protection market, much less next year and beyond, it is unlikely that there will be a sudden improvement in conditions.

On a product-by-product basis, shipments of Flumioxazin, our biggest-selling product, are roughly as we planned. Though there has been some impact by generics, demand for, and unit shipments of, our product are roughly as we planned. With our other products, too, unit sales are basically as we had planned, and, at the very least, so far there has been no major impact on our business. We need to pay careful attention, however, to what may happen. On the other hand, sales of our biorationals and other niche products have been solidly increasing.

- Q. You mentioned that the prices of generics are sharply increasing, but how much of the increase is the result of production issues for the raw ingredients in China? I think a portion of the increase is from demand and supply conditions, but please explain the extent of the price increases and conditions relating to the procurement of raw materials.
- A. The direct impact on us is limited, because we are supplied by very solid companies that we have known for a while.

 Because generic companies get so much of their supplies from China, the impact on them is relatively large, and generic prices increase on the order of several dozen percentage points, not just a few. In addition, we are hearing that, for some products, they are running out of materials, because supplies are extremely tight. And with the trade war between the US and China that I spoke about earlier, when tariffs of 25% are imposed on materials and products from China, pricing of generics becomes very severe to that extent. We have heard that some companies are actually being impacted.
- Q. Currently, are we correct in understanding that you are not being impacted on pricing?
- A. Because we have implemented a policy of sourcing from multiple suppliers, so far there has not been a major impact on us.

Conditions and Strategy by Country and Region

- Q. As for trends in the crop protection market by region, what is the regional composition of your sales, and what trends are you seeing? In addition, we were told that you are focusing on India, but please explain how you are handling your business in different countries, including the actions you are taking to establish direct sales in such countries as Brazil, Germany, and Argentina?
- A. In Asia, outside of Japan, sales are increasing especially in India. As I mentioned earlier, we seek further growth in India.
 - The relative weight of Europe in the composition of our sales is declining. We have been conducting business in France, Italy, and Spain, but when we think about the future expansion of our products, we cannot afford to ignore such countries as Germany, Poland, and the UK, and we will look for collaboration opportunities or acquisition opportunities.
 - In other areas, you should understand that where sales have increased very significantly since 2008 is South America, particularly Brazil. Because we have no footprint in Brazil, we are working on a partnership with an existing partner, or we may consider acquisitions to build our footprint there.

Crop Protection Chemicals Business in India

- Q. My impression is that Sumitomo Chemical India and Excel Crop Care (ECC) have mutually complimentary businesses, in that one is focused on specialty products, and the other is focused on generics, so that, rather than the economies of scale one may seek when merging two very similar companies, your objective in merging these two companies must be different. Please tell us a bit more about what synergies you expect to achieve in merging these two companies, and how long it will take to achieve these effects.
- A. Sumitomo Chemical India business is focused on Sumitomo Chemical's products, and mainly it is specialty products. On the other hand, ECC handles a wide variety of commodity and off-patent products, and it also has a strong brand with a reputation for quality. It has a greater sales network and sales ability than Sumitomo Chemical India, so we think we can effectively leverage that for our sales of specialty products after the merger.

We also expect to generate significant synergies by developing mixtures with Sumitomo Chemical's products. Developing mixed formulations is important everywhere, not just in India, but it is not easy to find partners, and it takes a lot of negotiations. On the other hand, when we have a line of off-patent products like ECC's, it greatly increases the options we can consider internally, and gives us the ability to freely develop mixtures.

On top of that, regarding production facilities, ECC has a plant for producing compounds, so there will be supply chain synergies, as well as, of course, back office and warehousing synergies.

By leveraging ECC's many strengths, we think we should be able to further increase sales of our specialty products.

As for the timeframe to achieve these synergies, we would like to accomplish many things in the shortest possible time.

Nufarm

- Q. Regarding alliance with Nufarm, have you achieved the original synergies you set out to achieve? To the extent you can, please discuss your views on the current and future business environment, what you can and cannot achieve with your current equity stake, and how you view the necessity of deepening your involvement in the future.
- A. In the business strategy briefing we held in fiscal 2014, we said that we were expecting to generate synergies in sales and product development worth about 10 billion yen on an annual basis, and we are achieving those results as we had planned.

We collaborate on distributions in 31 countries, and our alliance since 2014 in the turf and ornamental business in the US has been extraordinarily successful and sales of our products have also increased.

As for the development of mixed formulations, in Brazil and Argentina we succeeded in developing a mixture of our Flumioxazin and Nufarm's mixed product and launched it in the market. In addition, in the US we launched a new formulation of Flumioxazin using formulations from Nufarm. I think we have achieved almost all of the synergies we originally set out to achieve. As we advance additional mixtures in our pipeline, we can expect further results. There are things we cannot achieve with our current equity stake, and that is an issue for the future, but we are achieving all we can with our current equity stake and producing strong results. Our stance is that we want to continue this strategic relationship.

Biorationals and Expanding the Scope of Our Business

- Q. Please talk about your biorationals business, including your competitive advantages, the technologies involved, the overall competitive landscape, and the market potential (for example, the potential to apply it to crops that have large markets, such as rice).
- A. There is a very big market for biorationals, including areas in which we do not participate (such as biofungicides and biostimulants). We participate in the three areas: microbial pesticides, plant growth regulators (PGRs), and biorational rhizospheres. The markets in these areas are not very large, but our biorationals business (Valent Biosciences) has the top market share, at least in microbial pesticides and PGRs.

Regarding competition, in PGRs there are a variety of small-scale companies, and in microbial pesticides, there is a company that has been doing business, they originally handled such products as bacillus thuringiensis. Our microbial pesticide business was originally acquired from Abbott, and it has been accumulating technologies since the 1950s. It has extremely competitive fermentation technology, and the quality of its products is excellent; these are among its advantages.

- Q. Regarding expanding the scope of the AgroSolutions businesses, compared to the information we received two years ago, sales in your rice business have increased from zero to 1.5 billion yen, but there seems to be no change in seed treatments and biorationals, though we hear that the market size is increasing and the outlook is positive. Is there some problem in these areas?
- A. In the seed treatment business, we had been searching for a partner, and last December we finally formed a partnership with the company that, at that time, was called DuPont Pioneer. Now we are promoting initiatives to expand sales, including of existing products, and we have high expectations for the future. As for the biorationals and post-harvest businesses, they have been growing steadily. To further grow them, acquisitions will be necessary, as I mentioned earlier, and we will continue to consider opportunities.

Pipeline and R&D

- Q. For the products of B2020 pipeline, please talk about them in the order of their peak sales. For each product, when do you expect its launch, and when do you expect to achieve peak sales?
- A. We have not disclosed potential peak sales for these products, but their order on slide 11 is how we view their rank in terms of potential sales, with the largest on top. Previously, we said that the future consolidated sales of these four products would be 100 billion ven. While we still have the same outlook, this figure includes sales by Bayer and by BASF, which we are collaborating with on product development. That means, the business potential for the Sumitomo Chemical Group is about 50 billion yen. Among them, the product with the largest business potential is INDIFLINTM, followed by PAVECTOTM. As for timing of the launch, it depends on how long it will take from submission of registration till its approval, and it is different from one country to another. Now, Japan may be the easiest country to forecast the timing of registration approvals, and we expect that we will be able to launch it in 2020-2021. In Brazil, it is extremely difficult to foresee when we can get the registration approvals, but we are going to negotiate with the authorities to accelerate the review of our products, which are highly effective. As for AVECTOTM, registration application is already submitted in Europe, where registration reviews can take a very long time, lasting 4-5 years. It is also difficult to see how long it will take, as we have to get approval of each region and of each country, after EU registration. We will probably get approval in Japan before Europe. Therefore, we expect that after 2022 is when it will have a large impact on revenue.
- Q. You said that the business potential of the products in the pipeline for Sumitomo Chemical would be 150-200 billion yen. Does it mean that 50 billion yen would be from B2020 products and 100-150 billion yen from A2020 products?
- A. Yes, that is correct.

- Q. You have many promising products such as B2020 and A2020, and the number of patents looks also comparatively large. What is the background to that? Is it primarily due to the significant increase in research and development expenses you spoke about in your presentation, or is it due to factors such as increased efficiency in research and development and increased research staff? I would like to ask about any special efforts in research and your future strategy.
- A. The increase in research and development expenses partly means an increase in personnel, and we have increased the number of researchers.

 I think that, this may partly be the result of the investment of our own resources on research and development, and also the result of significant changes in our methods of research and development over the last ten years or so. Researchers have been working intensively on the subjects, which they selected and narrowed down after good discussion. In addition, the changes in our screening methods, may have also contributed.
- Q. Compared to major agrochemical companies, you seem to be small in terms of revenue, while you are as active in research and development as them. Could you explain the reason for that?
- A. We have significantly increased our investment in research and development of crop protection chemicals, while the major agrochemical companies are limiting their research and development in crop protection chemicals, but conducting it overwhelmingly in genetically modified crops and seeds. They have completely shifted their management resources. Now we are in an investing stage in our long-term vision, and as we said earlier, we expect that sales will grow significantly and we can obtain the results of our investment, when we launch the products in 2022 and beyond.

Other Questions

- Q. Could you please tell us about the impact of the Roundup lawsuit in the US on Flumioxazin?
- A. We do not know what will happen with that lawsuit, and we are not in a position to comment, but we do not believe there will be a direct impact. Flumioxazin is not sold together with Roundup, but our formulation is used on weeds with resistance to Roundup in fields where it is used, so as a result our business is not directly tied to that of Bayer (formerly Monsanto).

- Q. In today's presentation, we can see that you have been very active in acquisitions in the biorational field. Now I would like to ask what you think about acquisitions in the agrosolutions and environmental health business going forward, and in which areas and fields you will be especially active in. In addition, what was spent on acquisitions, and how should we think of the increase of the amount?
- A. Under the current Corporate Business Plan, we as a whole company have the possible budget for strategic M&A, but it is difficult to decide on a concrete budget for each possible case in advance. For example, in case of consolidations between major agrochemical companies, crop protection products are sometimes opportunistically sold. We would like to acquire them, if there are good products among them.
- Q. As for the scale of the acquisition, if, for example, the purchase of ECC is the upper end, are acquisitions still possible even up to that end of the scale? Is there any sorts of hurdle rate, especially from the perspective of the investment amount? For example, would purchases in excess of 100 billion yen be difficult?
- A. We would like to consider all sorts of opportunities. There is no change in our stance on open discussion, when there are opportunities. Of course, it is easier to do small-scale acquisitions, but if there is something really good, even at a large scale, we will discuss it internally. We don't decide if we will do an acquisition based on its scale (such as making the acquisition of the ECC as an upper end of the scale), but based on its future business returns. If we determine that the returns correspond to the investment, then we will do the acquisition.

- Q. Major agorochemical companies in the US and Europe are making significant investments in software for digital agriculture. Could you please explain what you think of software investment in research and development, as well as your future sales strategy?
- A. While the major agrochemical companies in the US and Europe are spending significant amounts on software investment as with genetic modification, we are doing software investments mainly in biorationals and our rice business in Japan, where we have competitive advantages. In fact, we have already begun pilot projects at Valent USA. There in the projects, we are using new technologies and are working on crops such as almonds, apples, and grapes, where our presence is much stronger because we offer both chemicals and biorationals.

In addition, in order to expand our rice business in Japan, a variety of data such as examinations of rice growth will be necessary. Such data have been collected e by human-hand with great difficulty, but we have already begun a new data collection project, with tools such as our "Ag Support" management system, a variety of sensor technologies, and automatic data collection using drones. This has only just begun, but we are handling it as a pilot program, where we accumulate and analyze data collected quickly in our expanding rice fields. In these ways, we are working in business fields where we can make full use of our niche strengths.

- Q. The digital agriculture that the major agrochemical companies in the US and Europe are mostly in major crops, and I think it would be extremely effective to connect your various competitive product lineups with them through software. What do you think about it?
- A. If we were to do something like that, we would do it as part of business collaborations. For example, we have been collaborating with the former Monsanto in our weed control solutions, and if there was something we could do as part of that, of course we would do it. But we would not be able to make that sort of system from scratch, we are continuing to work in niche areas.
- Q. Do you mean that, because you are to some extent included in the platforms of Bayer, BASF, and Monsanto, you will continue in that vein?
- A. We are discussing what form a collaboration would take, and we have not yet arrived at any specifics.

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