

researchers of Laboratory of Racing Chemistry in Japan.

You may refer to the words “enough evidence” as the above, but once the “inbreeding depression” that just specifies the narrowed genetic diversity has been realized, the whole racing circles will not be able to turn back to the genetic situation in which they were! It is truly “The End”... All the breeders in the world must understand it without fail.

Actually, the blood of a few popular sires will have scarcity value more and more and the stud fees may unreasonably go up. The above May 7 article mentioned that if the number of mares to be mated with Into Mischief, the North American leading sire of 2019, was capped, his stud fee must have gone up sharply and therefore it would become more difficult for the small-sized firms to secure the blood of Into Mischief and any other popular sires.

It is true, regrettably. It will become so, but there is no alternative.

The current action of American Jockey Club makes me think of their “sincere hope” and the following can be conceived:

- i) The racing circles of North America have just comprehended the serious condition of their own with respect to the narrowed genetic diversity, which may be their “impatience.”
- ii) In the North American circles, there are a certain number of scientists having plenty of guts to enforce the foregoing measures.

In the meantime, as for the countries and areas other than North America, they would be suffering the serious condition anyway if no measures are put in force for another few years.

Seeing the Japanese circles, I feel anxious about their current situation, because it seems that such scientists as mentioned in ii) above are few. As referred to above, the researchers of Laboratory of Racing Chemistry in Japan wrote a meaningful thesis showing the concern about the low levels of genetic diversity, but I do not think that they will take the initiative in enforcing some measures like the above against the resistance forces rooted there.

When enforcing the measures like the foregoing of North America, it will be necessary to have a viewpoint against the current situation or policy of racing circles. Accordingly, as for Japan, JRA (Japan Racing Association) and the other organizations involved in the racing at any rate will not go about such enforcement wholeheartedly, to say nothing of the major stud corporations such as Shadai.

## **2.8 Europe Sunk with Genes of Galileo**

Reverting to the above dispute, for which countries (regions) should the measure against the narrowed genetic diversity be put in force besides North America?

I was truly surprised to acknowledge the fact that of the horses entered to 2019 Prix de l'Arc de Triomphe, 9 out of 7 bred in Europe have the blood of Galileo (crop:3, grandcrop:4), so that the horse having no genes of Sadler's Wells was only 1 out of them, actually...

What do the European breeders think seeing the circumstances? Under such circumstances where not a few crops of Sadler's Wells have become excellent sires, e.g. Teofilo, New Approach, Frankel, Nathaniel, etc., if there are still many breeders there saying without any prudence, “How great the blood of Galileo is!,” it is no wonder that the circles will begin to decline rapidly. It is about one century from the time suffering the serious aftermath of the genes of St. Simon sweeping them, but the human brain may completely erase any “negative memory” and therefore it may be the reason why they say, “History repeats itself.”

Referred to at the beginning of Chapter 1 above, not only Anthony Van Dyck, the winner of 2019 Epsom Derby, but also Sottsass, the winner of 2019 Prix du Jockey Club and 2020 Prix de l'Arc de Triomphe, has a half-sister winning GI.