LETTER TO THE EDITOR

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Spastic Paresis; costly defect in dairy cows

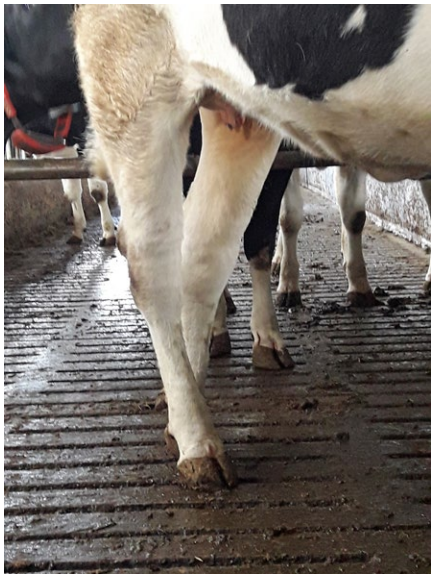
In recent years, there has been necessary attention for the increasingly straighter rear leg position in Holsteins. Too often we see young animals that have much straighter rear legs than optimal from side view, often resulting in little flexibility and poor mobility. Only if we continue to objectively record linear data on various farms will we have the possibility to identify individual bulls that transmit straight, optimal or sickled rear legs based on their breeding values. With that, corrective matings can effectively be made based on reliable measured data (proven bulls).

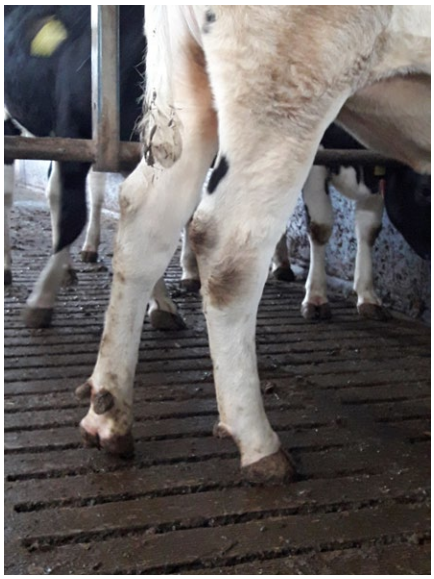
However, there is another problem among dairy cattle which is completely underexposed but causes great economic damage and is often mistaken for straight rear leg(s): "overstretched legs" or "Spastic Paresis" (SP). Therefore, first an explanation of the phenomenon: according to various publications, SP is a heritable disorder in which the hock joint is abnormally stretched as a result of a continuous spasm condition in the Achilles tendon whereby the joint cannot be bent. This condition usually manifests itself in Holsteins after 6-8 months of age. In light cases the hoof is still on the ground, in severe cases of cramping the hoof points backwards. Sometimes both legs are affected and animals with the abnormality lie down a lot. Do you recognize this phenomenon? As a mating-consultant, unfortunately I have seen this defect too often. The regular appearance of SP is confirmed by veterinarians, occurring within different farm systems. Because it is likely that the defect is hereditary, I advise not to use these animals for breeding, but it still occurs regularly. This is of course costly as these animals are immobile, resulting in lower performance and early culling.

It is often said that this is the result of breeding towards straighter rear legs. This is certainly possible with the extremes (ex. Flagship with -5.87 legs side view), but I also come across animals with an overstretched leg where the other leg shows a slight curve. The sires of these animals regularly have a breeding value with above-average set of the rear legs. Therefore, in my opinion, we should approach this defect independently of leg set. On a recent trip, we visited an AI-company. During our bus ride along the open stalls, we saw an adult bull with very clear SP. I always assumed that semen would not be sold from bulls with such a serious defect. Various stakeholders in the AI-industry told me that veterinarians monitor animal health. At the same time, financial interests weigh heavily when expensive high index animals are bought with the potential (high) demand for their semen. Here part of the problem becomes clear; the race for high indexes makes such aspects seem subordinate to the genetically highest progression. But let's be real: a dairyman will not really notice the difference between animals with a sire of 2750 or 2850 TPI, but he does experience whether an animal with a defect does not function properly and is culled too young. Their raising cost is far from being earned back.

Independent of leg set

I think more genetic research is needed to identify the cause and possible carriers of SP, which is time consuming. More important is that everyone in the industry takes its responsibility. In the Netherlands, it has often been discussed to apply more detailed information for culling reasons. Now there is only the general discharge reason "Feet & Legs" to enter, which does not identify such problems. In addition, it is very important that the AI-companies report defects, same as other known genetic defects. If a bull is presented with notification "SP" to its information (in addition to aAa-codes etc), it is up to the farmer whether the risk is taken to use the bull. In conclusion, I call on the industry to enter into a discussion about this topic, and to heavily weigh the importance of a healthy cow population (long term) in addition to the interests of the dairy farmer.





Examples of Spastic Paresis

This counts for both limiting the increase of inbreeding as well as sharing all (genetic) defects, because we not only influence the income of farmers, but we influence the entire dairy industry.

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