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by Monika Savier

Excellence for the Future is Based in History

NK Nabhan, representing the 5th generation of the Stallion Dynasty at Nagel's Katharinenhof in Germany

An interview with Dr. Hans Nagel on his breeding concept and the successful young sire NK Nabhan

nybody believing that Dr Nagel has long since retired from Arabian horse breeding, now living off the income of his past by taking a few lecture tours as quite some of his contemporaries of former breeding times do, is quite mistaken. He is 87 years old by now and has gradually been passing on his official functions to younger people, such as the presidency of the World Arabian Horse Organization (WAHO), or, this year after more than 30 years in office, the chair of the All Nations Cup board in Aachen. However, his dedication to promoting activities centered around Arabian horses is unabated. Today, he is just the breeder he used to be, adhering to a scientifically sound breeding concept and keeping a closed studbook of his own, and calling his proceedings "his experiment". It is the basis of a whole number of famed Straight Egyptians who are recognizable as an Arabian type of their own and who have found fans all across the globe.

Nagel does without all those digital options of presenting his horses on the world wide web and in social media. Instead, he writes books, likes to personally meet guests in the real horse world of his stud with a cup of coffee, and goes on putting his creative ideas into practice. At the end of August, there was an Open House event in Lochem,



Dr. Hans Nagel and his mare NK Lubna (Jamal El Dine x NK Layla)

the Netherlands, on Mahmoud Anzarouti's El Sham stud. This event took a stand to express many breeders' position: that their horses can impress an audience without stressful training and the commercial dark side of showing, in a relaxed atmosphere. Hans Nagel was one of those who had initiated this event, and was present showing his young stallion Nabhan's foals with their dams. It was a successful display: you can tell a good sire from his offspring, and this group had everybody convinced.

Breeding and selectioning stallions has always been dear to Nagel, not because they are more important to him than the mares, but because it is very difficult to breed good sires, and he has always been one to enjoy difficult tasks. "Among 50 foals, there is maybe one that is really good", he says. "This is something you need to work for, and despite all the work you invest, you can never predict the result. You just have to try and arrange combinations that offer the possibility. The mare is pivotal in that. It is unfair to bring a young stallion bad mares, he needs some strategic support, and the results achieved by strategy are so well founded you can base your further work on them." NK Nabhan got this chance on Katharinenhof Stud, and he used it to advantage.



Arabian Stallions (ω) of the World XIII —



NK Nabhan (NK Nadeer x NK Nerham)



Savier: The latest result of the globally unique breeding concept you established on your Katharinenhof Stud in Germany is the stallion NK Nabhan. Will you tell us something about him?

Nagel: He is an exciting-looking horse in my opinion, a bay Egyptian with great movements, and the 20 foals he has produced in the 2016 and 2017 foaling seasons confirm his high quality as a sire: phenotype and genotype are combined in a perfect manner.

The history of this stallion is an interesting story, revealing the background of such a closed breeding herd of about 20 mares and stallions, now operating for 35 years. Every generation born during this time has displayed some distinct progress, and the foals of NK Nabhan are living proof of this achievement. This story should be told from the very beginning, otherwise it will not unfold properly.

In the 1950ies and 1960ies, the population of Arabian horses in the Egyptian state stud El Zahraa was rather small: about 50 to 60 mares and 5 to 10 major stallions. There was not much demand and interest in these Arabians from abroad, neither in Europe nor in the US. The run for these horses started in the 1970ies and most of the foals produced were sold quickly.

Savier: Yes, they were sold quickly, but many of them seem to have been lost to history. Their names don't appear anywhere. Why is that so?

Nagel: If one takes a close look at today's population of Egyptian Arabians, only a few mares and stallions out of all these sold ones became influential and were eligible for further breeding. The majority vanished during the following generations with their offspring, or remained unimportant, be that within



NK Nadeer (NK Hafid Jamil x NK Nadirah)

Egypt or, sooner or later abroad. This becomes very clear if one studies the pedigrees of the outstanding Arabians which are still around. These results make for very interesting insights as to who were these mares and stallions who kept the fame and the reputation of these "pure-bred straight Egyptian Arabians" at a high level of public acceptance.

Regrettably there are not many breeding farms left today which deserve the name and the denomination as being a true and important breeder. At the bottom of the pedigrees of their rootmares, 5 to 6 generations back, the names of these important horses appear and prove the fact that the famous rootmares in this Egyptian breeding stock are only a few. There are, for example, names such as Moniet el Nefous and her three daughters Mabrouka, Mouna and Ibtisam appearing; or Bukra and her offspring; it

applies also to the mares Kamla, Yosreia, Nefisa and only a few more. The same is true for the stallions with Nazeer as the Number One and his sons Ibn Halima, Morafic and Alaa el Din. They are the most important ones and they form the only valuable sire line.

Savier: These are statements which breeders who tail their stock back to other horses are sure not to like. Can you offer some more proof?

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Nagel: Well, one of these few breeding farms which work with these horses and their families, is my Katharinenhof stud in Germany, of course. It offers a perfect example for this observation. I acquired several rootmares 50 years ago from El Zahraa after I studied their history and performance very intensely. Then it took me 15 years of trial breeding in my own stud, until I made that decision that may



NK Nachita (NK Nadeer x Bint Bint Nashua)



appear surprising. I closed my small population and decided to continue with no more than the 12 to 15 broodmares and 4 to 6 stallions that lived there at that date. From that time on no horse from outside has ever entered into this small population, for 35 years.

Savier: And yours were horses of the lines you mentioned, and almost every breeder knows what you achieved in your stud. What were your reasons for deciding to adopt this breeding concept?

Nagel: I wanted to prove my own and other horse connaisseurs's - such as Dr Amin Zaher - belief that only the Arabian horse has certain outstanding

points compared to any other horse breeds. Number one: He is highly resistant to in-breeding. Number two: He is a horse with a great dominance as a breeding horse. Number three: The Arabian carries all genetic potential to be and to remain the most beautiful and correct horse there is.

Savier: Why does all of this apply to the Arabian horse?

Nagel: If such virtues are really possible and existing, then this breed requires a very specific historical background, or, to put it differently, a very specific environment for its development. In concentrating on these points, it was

NK Hannah NK Nabhan x NK Habiba



(NK Nadeer x NK Ansata Ken Ranya)

NK Habiba

only the Arabian Peninsula which offers this required environment with its very, very limited natural resources, limited in the sense of living conditions, feed and food.

This forced their breeders, the Bedouins, to keep only a few horses or small groups of horses, as a big contrast to those bigger herds which one could find at the same time in the Arab countries in the North along the big rivers as in Syria and Iraq. These small groups were bred to each other and when, due to this close breeding, faults and weaknesses appeared, natural selection took place and eliminated those weaknesses immediately. In consequence, the true Arabian is a product of severe

natural selection as the decisive factor. The human influence is second to that, it is even very weak. A Bedouin had to accept that he had very limited control. The only thing that was left for him after such merciless natural selection was a certain choice.

Savier: And how were you able to make sure that your horses were the ones that might have been favorably selected by the Bedouin environment?

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Nagel: If all of what I just said about natural selection in Bedouin Arabia is true, then the requirements for such a concept as applied by Katharinenhof should be as follows:

1. To choose only horses for such a



NK Naala (NK Nabhan x NK Nadirah)



NK Nadeer (NK Hafid Jamil x NK Nadirah)



NK Nizan (NK Hafid Jamil x NK Nadirah)



NK Nadirah (Adnan x Nashua)

Arabian Stallions (5) of the World XIII

program which had strong historical roots into the Arabian Peninsula or have a type which fits such an environment. Only certain Arabians of El Zahraa are fulfilling this requirement, not all of them. Those suitable ones are the Arabians brought by Abbas Pasha and later acquired by Egyptian princes from similar sources.

2. To study and to find out certain families in the El Zahraa population which display a close breeding index already, and none of their family members should display weaknesses which are a consequence of such a way of breeding. Katharinenhof started in its first year with certain rootmares which fulfilled as far as one could conclude such requirements. In the following 15 years, these horses and their offspring were closely examined in my own stud, and finally the decision

was taken to bring only four rootmares and their offspring into such a close program, along with those stallions which were related to these four families and which had been tested at the same time, ensuring that all of them were free of unwanted features.

By the way, if genetic disorders such as CA, SCID and LFS really were to crop up because of inbreeding, or because of the line breeding in a closed bloodstocks - this is what critics of linebreeding and defenders of "cross genetic disorders out" claim - why did they not appear in my horses? A feature that is not there in the beginning cannot crop up in strength later. If something turns up, it can only result from a mutation and you can eliminate it within one generation by removing the carriers from breeding. All of my horses are free until today



NK Lubna (Jamal El Dine x NK Layla)

3. In addition, the choice was made by considering that all required characteristics and features of a typical Arabian should be present in these four groups in a most perfect manner. It was and is not a question of a single horse which combined them all, but they should be available and found in perfection, spread and visible in one or the other horse.

O jonientz

Savier: I see, so these were the foundations you built your breeding on. On this basis, what would you say is the outcome you achieved in your stud?

Nagel: Now, after 35 years, a certain type of Arabian emerged. All warnings of the danger of in-breeding which might destroy such a program, did not materialize. In order to control such a situation, the following measures were taken:

The in-breeding index was established every five years, based on pedigree information including the total known history of each living horse which belongs to this program. These indexes increased from 10 % to 40 % in the stock within

35 years, which means, from 1982 until today. No negative consequences of this increase were ever noted.

For curiosity and security, the increase of homogeneity was checked as well, by applying a specific DNA analysis. A stunning result appeared in this study: the homogeneity remained low and was not in all in line with the clear increase in the established in-breeding index calculation which is commonly applied and used as a base of discussion in this respect.

Savier: These control measures are, so to speak, the record you kept of your horses. But what were your selection measures, for positive as well as for negative features?

Nagel: The second aspect concentrated on the improvement of these horses as a phenotype. Each negative point of a horse was properly evaluated and a breeding plan was established in order to use such stallions which might be able to transmit and to produce the required features.

It requires immense patience and knowledge to wait for such stallions to



NK Bint Abla (NK Nabhan x NK Abla)

> NK Abla (Jamal El Dine x NK Aziza)

emerge from this population, but it could be assumed that one day they would show up.

There were many items which needed attention. Many of the finest Egyptian horses had a long back and a short croup. Fifty years ago, nobody argued about a topline. Also straight shoulders and shorter legs were common. Beautiful heads, a perfect tail carriage were at the same time the highlights of these horses. And one could look further for powerful movement, proper leg conformation and to fix in all horses a nice, big black eye and a small muzzle. Loss of pigmentation should be strongly controlled and color introduced. White markings on legs or on the head were totally eliminated, only a small star or a small strip in the front head was accepted.

Savier: You said you assumed that one day, the stallions you needed would show up in your program. Which are these stallions?

Nagel: It took several steps to achieve such goals and several stallions were involved in this procedure. There was Ansata Halim Shah, there were Jamil and Salaa el Dine, there are Ibn Nejdy and NK Hafid Jamil, NK Nadeer, NK Jamal el Dine, NK Kamar el Dine and now NK Nabhan. Each of these stallions had a specific task to accomplish and to bring one of the required improvements, otherwise he would have had no place in such a program.

Savier: Thinking along conventional lines of breeding, even if these stallions carried the features you had hoped for, it sounds almost unbelievable that there should have been no drawbacks from using stock that is so closely inbred.

Nagel: After all these years, no sign appeared or no warning was observed that this kind of close breeding produced faults



Salaa El Dine (Ansata Halim Shah x Hanan)



NK Nabhan (NK Nadeer x NK Nerham)

which could be related to their genetic make-up. In so far it looks like these Arabian horses, or to put it better: this specific population is highly resistant to in-breeding, and history and the arguing of so many connoisseurs of the Arabian horse as the oldest unique breed are correct. The DNA results are supporting these facts and more research in this field should be highly recommended.

In all of my horses, no negative features appeared in addition to those that had already been there before. Whatever showed up were the same old shortages

and problems that had been known from before, existing in the historical gene pool and forcing man to deal with them from time to time.

Savier: Let's come full circle and discuss NK Nabhan again. How did you make him "show up" in your breeding, and what features does he carry that you need for your program?

Nagel: It is interesting to study under these above aspects the pedigree of NK Nabhan and also to look at him as a phenotype, that means as to his type

NK Nawai (NK Kamar El Dine x NK Nadirah)



NK Nay (NK Nabhan x NK Nawal)

and structure, and also in his capacity to be an inheritor. In two years, he produced 20 offspring already, which offer a good base for evaluation.

The pedigree of NK Nabhan reveals a great part of this story. It took five generations, starting with the purchase of the rootmares in 1967 and involving the selection of 5 stallions as sires in a row, to reach the type and the features of NK Nabhan. All these stallions had a very common characteristic, all of them are of a very expressive Arabian type. But each one of them should have another highlight which was appreciated and wanted as an improvement of the herd. So for example, there was Ansata Halim Shah with a perfect topline and shoulder. Salaa el Dine inherited both features from his sire Ansata Halim Shah and added a longer nice neck and a very small mouth and nostrils. Ibn Nejdy shortened

the horse and produced longer legs. and also improved the quality of the neck. NK Hafid Jamil is a type of this own with a perfect front part, head, neck and shoulder. Such type was a surprise and totally unexpected. And NK Nadeer, the sire of Nabhan, is a very refined horse in total, higher on the legs, an elegant neck, a great shoulder, perfect front legs and an extremely fine muzzle.

If one looks at the mare-side back to Egypt, Lotfeia appears in the pedigree, on the paternal side as well as on the maternal side. Lotfeia was a daughter of Alaa el Din and Bint Kamla and one of the most appreciated rootmares in the Katharinenhof breeding.

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Nashua is Lotfeia's daughter by Salaa el Dine, a Hanan son, and she is an Alaa el Din-daughter as well. She was the prettiest mare ever born in Katharinenhof until now. She was very



Bunch of Mares at the Katharinenhof



fertile, produced five daughters and one of her most outstanding ones was Nabeelah by a son of Salaa el Dine. NK Nerham, the dam of NK Nabhan,

NK Nerham, the dam of NK Nabhan, is by Jamal el Dine who was a good combination to Nabeelah. Nerham has a wonderful neck, the best in the stud, her head resembles her grandmother, Nashua, and she excels in powerful and exciting movements.

Savier: So for you, each of the horses in your program contributes some feature you

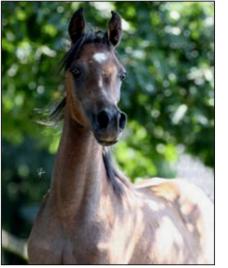
appreciate.

Nagel: The descriptions I just gave should be taken as a sample of how the procedure of selection was done. There are some further important aspects. One of them is color. The bay color in Katharinenhof's horses relates to the other great rootmare, Hanan, so that NK Nabhan is also a bay. And definitely for his size and long legs, Hanan is responsible as well.

It is also worth mentioning that in all these years the size of the Arabians did not deviate from the original ones. The

Katharinenhof has his Own Type













lowest measurement is 1.46 m at the withers, the highest one 1.53 m. Not one single horse had to be culled because of higher or lower height except one filly who remained small, she was the first foal of a young mare. This is a very interesting point in comparison to the Polish and Russian breeding programs where the height of the horses had to be constantly controlled, since there was a strong tendency to overgrow. Many famous show horses of today could be considered oversized.

Savier: What about NK Nabhan? You said that in him, phenotype and genotype are combined in a perfect manner. Is he the culmination of your breeding?

Nagel: Nabhan's foals promise to be a further step forward in the improvement and perfection of the Katharinenhof Arabians.

He produced colts and fillies in such a quality which are very promising and which will guarantee the successful continuation of this unique breeding concept. O

Irabian Stallions (5) of the World VI