

*THE KUVASZ BREEDING
IN THE NETHERLANDS*

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Introduction

This article has been written as background information for my presentation at the meeting in Rátót, Hungary. It contains information how the Dutch Kuvasz club (Kuvasz Vereniging Nederland, KVN) acted since its foundation in 1981.

History

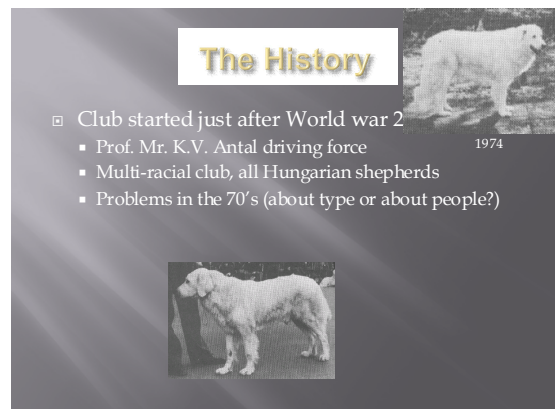


The history of the Kuvasz in the Netherlands started in the early 30's. The Kuvasz that was imported from Hungary and registered as the first one ever was Diktator, born at July 2nd, 1932. Only a few followed in the 30's, and during World War 2, no Kuvasz was registered.

Only after World War 2, the Kuvasz received new attention. The driving force behind this was prof. mr. K.V. Antal. In the late 40's and in the 50's, he founded and led the club. He also left his marks on

the breed as judge and breeder. The club received the recognition of the Dutch Kennel Club (RvB) for all Hungarian breeds, and later even for all kind of other somehow related breeds.

The Kuvasz never became a popular breed: in many years no litters were registered at all. The basis in those days was formed mainly by import dogs. Germany became the most prominent export country. It will not create any surprise therefore that the Kuvasz in Holland showed remarkable resemblance to the German dogs in the 70's, being erroneously called the "German type". This type of straight coated Kuvaszok evoked a response by the "Hungarian type adepts". Some people imported (regularly very) curly dogs from Hungary, but unfortunately these dogs were not always of a high quality (health, temperament). This schism between types was eventually the cause of a split up, and the Kuvasz Vereniging Nederland (KVN) was founded in 1981.



The KVN

The KVN applied for recognition immediately after its foundation, but the Raad van Beheer (RvB) tried to negotiate a merger with the parent club. This attempt failed eventually and the KVN received a preliminary recognition in 1988. This was followed in 1993 by a definitive recognition and the appointment as sole representative for the Kuvasz in the Netherlands. Important reasons for the RvB were the breeding policy (which was ahead of time) and the efforts to create a database with health data for the Kuvasz in Europe.

Policy at the beginning

But how did the KVN handle the original “hot topic” of type? As this could easily become a very difficult issue, the club did not really focus on this, but left it to the breeders. Another reason for staying away from this issue was the fact that with a preliminary recognition we did not have the power to impose anything. It meant that the type remained as diverse as it was before. Instead we focused on health and temperament.

But as soon as the recognition was received, we were able to look at the future. After a few years, during which only small progress was made with regard to uniformity, we decided to invite Hungarian judges. We continued that for a few years and these judges evoked a remarkable (but intended) response: because they set untypy Kuvasz back in their qualifications, breeders were triggered to switch. After a few years, the type became rather uniform, and the really untypy dogs disappeared “from the stage”. They still are being born, but they are a small minority nowadays.

The development in numbers



The History 30 years

- ▣ **Kuvasz club**
 - In the second part of the 80's up to 130 puppies/year born
 - In the early 90's about 250 members
 - Nowadays
 - abt 130 members
 - 8 regular breeders
 - 30-50 puppies born/year
 - Club show usually one of the biggest in western Europe
 - Leeuwarden 2011 EuroDog Show new milestone?

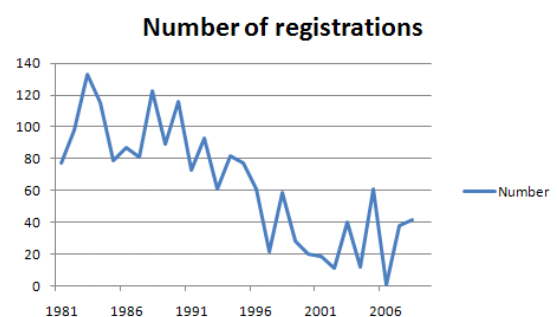
Soon after the start in 1981, the KVN counted about 100 members which grew to 250 in the 90's. The owners remained divided over two clubs till 1988 due to the situation of a recognized and a new club. The number of puppies born reached a top in 1983 with 133 new registrations (including imports). After that, the number of new registrations slowly declined (and therefore also the number of members) to only a few litters per year. In 2006 there was even a year without any litter born, and only one import. An explanation

for the low number in the 00's is the emigration of a regular breeder to Belgium (and later another one as well), but this doesn't compensate for the general trend of declining numbers.

Health issues at the start

When I started as chairman of the breeding committee, I was confronted with several health issues. Most prominent were cochlear deafness and hip dysplasia. Soon after my election osteochondritis dissecans (OCD) and microphthalmia in combination with juvenile cataract could be added to the issues that received our attention. Also temperament was a problem: many Kuvaszes were rather sharp and/or nervous. I come back to the approaches for each issue later.

The KVN decided not to compromise on health issues: the rules applied to everybody. Especially for dysplasia we applied the rules consistently. However, data were scarce: my predecessor had it “all in his memory”, so it was rather difficult to assess the situation on any health issue. My first decision was therefore to start to document the dogs in the Netherlands. The variety of problems, and the extent of them, convinced me conclude that the Dutch population was too small to survive on its



The History at the start

- ▣ **Kuvasz club in 1981**
 - Preliminary recognition in 1988
 - Fully recognized as only representative for the kuvasz in 1993
 - Type was a weak point, but controversial
 - Focus on health (initially hip dysplasia and cochlear deafness) and temperament
 - No compromises on health issues
 - Collection of data and set-up of database started in 1985
 - Each population is too small to survive in the end
 - Widening of gene pool is necessary controlling genetic defects

own, and probably that would be the same for each individual country, even Germany. We needed to widen the gene pool and avoid matador studs. For that we needed more information about more dogs in Europe, if not all. So I decided to follow my ambition to create an electronic database to cover Europe as a whole, primarily western Europe (the political situation at that time made it rather difficult to collect data from Hungary and other Eastern European countries).

The database should contain pedigree information, health information (including causes of death), show information, pictures and owner information. Any other scrap of data was filed as well as text.

The database

Started as a collection of paper sheets, the idea of a database became reality when I received genealogical software. It had to be adapted but I got help on this and also on the entering of data. I chose for this as available pedigree software at that time was meant for breeders and not for clubs, and did not allow for storage of data as I described earlier.

The Kuvasz Club why a database?

- ▣ Data collection since 1985
 - Variety of problems showed vulnerability of breed
 - Way out through widening of gene pool
 - Discourage "matador studs"
 - Promote use of less known studs
 - Promote submission of data by the breeders with avoidance of repercussions
 - Need to document full potential within the own population AND in other countries

Within a few years the database grew from a few thousand dogs to what it is nowadays: a worldwide coverage of Kuvasz data. A major step in this was the merger with the SilvanHold database, owned by OBi Fox from the USA. It also meant the switch from an old DOS-database to a Windows based, relational database.

The Kuvasz Club

- ▣ Database in 1985: Kuvasz Ancestral File (KAF)
 - Ancestry
 - Show results and related information
 - Health data
 - Causes of death
 - Any other piece of information
 - All data filed were reported by RvB/VDH/....., owner and/or breeder for optimal reliability
- ▣ Merger with SilvanHold database (USA) in 1998
 - Ambition: worldwide coverage
- ▣ Web access
 - For members as part of service package
 - For clubs(?)

But a database is nothing without data. Pedigree information was widely available (with some limitations for several countries), but show information and health information were not available on a large scale.

But not only the data collection and verification is important, also the access is essential: who should get access. We decided that our breeder/members were allowed to view data, especially the already published information. On a need-to-know basis

we could also tell them health information which was not (yet) published but free to communicate. For this we strived for web access which is now technically realized. However, abuse of the data should be discouraged and penalized. Please realize, that breeders in the Netherlands sign an agreement for publication of health data, so everyone is in the open on this issue! We also discussed

to grant access to clubs who also contribute to the database but we have not yet decided how to implement this.

And apart from that: a database was considered to be a threat by many people. Whether they had something to hide, or forget, or not: not everyone was glad with it. For this reason, Obi Fox closed her database after about a year.

So we needed to get an image of reliability: we only filed data that were officially published or reported to the Breeding committee by the breeder and/or owner. Rumors are not filed! And after a few years, confidence grew and people started to submit data.

The Kuvasz Club why a database?

- Potential consequences
 - Positive:
 - Full responsibility and liability for breeder
 - The Internet even reinforced this (direct access to breeders instead of via club)
 - More involvement in regulations
 - Negative:
 - Loss of control for club
 - Compensated by more dialogue between club and breeders
 - Limited by RvB rules (e.g. maximum # of matings)
 - Diversification between breeders: different emphasis
 - Loss of quality
 - Not (yet) observed: More "competition" on quality/health issues

A database has several advantages, but also some potential drawbacks. It is an advantage that breeders can decide themselves on matings based on information collected by the club, with a high reliability. Data that have not been shared between breeders can be made available by sharing it with the club. This makes it possible for them to fill in their responsibilities and to be confident about any litigation. The internet allowed for direct access for the prospective puppy owners to breeders (instead via the club), which could make a club superfluous. The service package that we created for the breeders (of which access to the database data is a part) compensated that because the function of data depository filled in their specific need. The service package granted them also more influence on regulations.

One could however argue that direct access to a database could lead to loss of control by the club. The question is: is that bad? Should a club be in control of everything? Would control not mean responsibility as well? Our idea was that it would not be a problem and that there would be more dialogue between breeders and club. Also the increased regulatory impact by the Dutch Kennel Club limits that loss. And the fact that breeders could choose themselves (and that they did not need to follow the advices of a club) creates a diversity in selection of studs due to individual priorities of the breeders.

The Kuvasz Club the database

- Abt 42000 kuvasz
 - Germany: 14440 (100% coverage)
 - Hungary: 10047
 - USA: 6734
 - Holland: 2532 (100% coverage)
 - Sweden: 1404 (100% coverage)
 - Switzerland: 917 (100% coverage)
 - Belgium: 203 (100% coverage)
 - Argentina: 143
 - France: 83
- Small population: 3600 puppies recorded after 2000
 - Narrow gene pool
 - Exchange needed

At the moment the database contains pedigree information of more than

40.600 Kuvasz, 10.000 show records, health data on thousands of dogs, and thousands of pictures, from many countries.

Depending on the type of registration, the populations in several countries are covered for 100%. The data from other countries are collected via websites, show catalogues and



pedigrees. The oldest registration filed is from 1893, a dog called Roland.

Present situation in the Netherlands

The situation in the Netherlands has become rather complex nowadays. The RvB abandoned her rather medieval way of controlling things and became a democratic club of clubs. However, unsatisfied people attacked the monopolistic position of the organization and were put into the right. So nowadays more than one breed club is allowed. But there is another threat from the outside: the regular public campaigns against aggressive dogs. It weakened the position of the RvB as sole representative and negotiating partner with the government. Other organizations like animal welfare use every opportunity to start

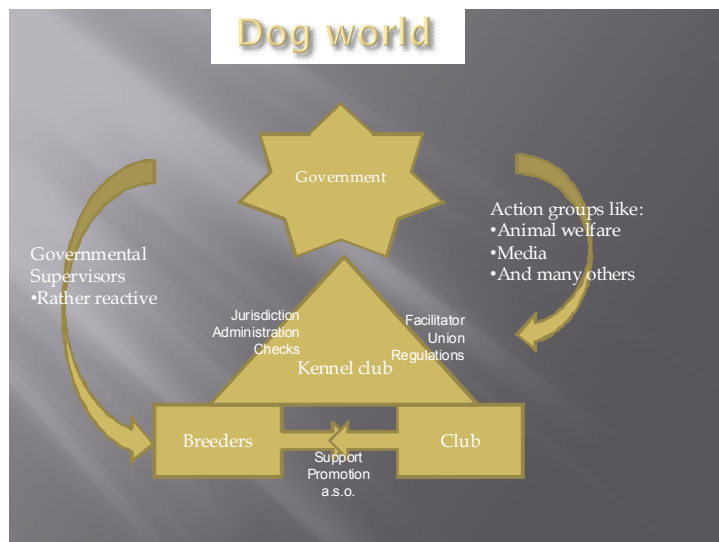


Beeinflussende Faktoren Gemeinschaft 1961

- ❑ Negative opinions about breed dogs
 - Increase in 90's
 - Bte incidents
 - "puppy farms"
 - Many negative publications
 - Tierschutz wurde einbezogen
- ❑ Present demands:
 - Low-risk dogs
 - Healthy dogs
 - Guarantees


a discussion about the RvB's position. At the moment the RvB is tolerated by the government as discussion partner, but has to come up with something tangible. It puts the RvB under pressure

But nevertheless, the RvB is still in control. It controls everything by the central registry, a central breeding policy, the veterinary assessment panels, the health registration and the issuing of pedigrees.



Here a few words about the central breeding policy. This CBP is a format with some rules that apply for all ages. Examples are a limited number of matings for studs, minimum and maximum ages for bitches, and some general rules about kennels. Most of these rule were already implemented in the KVN.

This all means that the position of a club is rather weak. A breeder almost always receives pedigrees for his puppies, even if a mating is against club rules. But on the other hand, the breed clubs are made responsible for the breed. This is a very delicate position. The club must safeguard the quality, but cannot be responsible on the level of individual litters. Interests of breeders and clubs are therefore sometimes contradictory. As we have hardly any sanctions available, we cannot enforce matings.



Playground in dog breeding Club

- ❑ Responsible for quality on population level
- ❑ Interests/responsibility of club and breeders sometimes contradictory
- ❑ Balance rather delicate
- ❑ Limited power, sanctions often at KC level
- ❑ Focus on co-operation: "we need you, but you need us as well"
- ❑ Knowledge on population level as "trade"
- ❑ Medical knowledges as "trade"

The KVN therefore decided years ago to abandon the system breeding permissions for litters in favour of a co-operational model. We inform breeders about every aspect we know, and it is left to the breeder's responsibility to decide. Of course there are some basic rules (like dysplasia and PRA restrictions) where breeders have to stick to, but further there is a lot of own responsibility (and liability).

So knowledge is now the club's core business. It's knowledge about individual dogs, their health, their appearance, their pedigrees. But it's also knowledge about genetic problems and their distribution patterns. A good example is the PRA-situation, which we will discuss later more extensively. The few cases at the start didn't shock some people, but when we could show to the breeders that we probably dealt with a gene that has been disseminated in the populations for decades, they were quickly convinced about a screening programme. They also adopted a risk assessment system that I designed for another case to assist them in their choices. Even though this RTR system was not validated, the breeders were convinced it was better than nothing as it showed the level of potential "contamination" of lines.

Present strategy



The policy

- ▣ Paradigma shift in 1998
 - Before: Club advised and determined
 - Club became semi-responsible
 - Experienced breeders were often dissatisfied
 - Own responsibility and opinions were ignored
 - Club had hardly any power
 - After: Club informed
 - "Stud CD": all available/ documented studs in Europe
 - Health information provided for breeder's selection of stud
 - Web service since 2010 (not yet fully operational) for members

The KVN wants to work closely together with breeders. The Breeding Information Center collects, verifies and interpretes information. It also is responsible for analyzing medical and genetic information and advise breeders and owners about the implications. Breeding is a joint effort, with the breeder being responsible for the individual results and the KVN being responsible for the data collection and maintenance of the database. The KVN strives for genetic diversity which sometimes is in conflict with the ideas of breeders. The

KVN has to offer information on all potential studs, not only on the prize winning Champions.

In the beginning the KVN offered a "stud CD" with all available information on all potential studs in Europe. This was a rather time-consuming activity. Opening the database was a logical next step. This year we will assign usernames and log-ins. We still try to work out an option to add images and videos to the web-application, but we are not so optimistic about this.

Organizational implications

As may be concluded from the description of the Breeding Information Center's work, it is rather important for the breed. Continuity is essential. However, in the Netherlands boards change regularly and often not voluntarily. When a board resigns, or is dismissed by the AGM (Annual General Meeting) it is rather usual for committees to resign as well. The KVN realizes that this is a weak point and founded the Breeding Center. The original organizational proposal linked the Center to the AGM, and not to the board. In case of a "revolution", the Breeding Information Center does not need to feel a loyalty towards a resigning board. This way the KVN hoped to create more stability with

regards to its “core business”: health information. Actually, it payed off too soon, even before this organizational change was formalized.

Results

Type

Type was rather weak at the start in 1981. The two types had strong followers. Even stronger: type was a n issue of conflict. But

after a few years the club invited a series of Hungarian judges. Their judging created clarity, and the breeders that favoured long straight coats gradually started to switch. Nowadays we have a rather uniform type. Many Dutch dogs win at shows abroad. We had to act this way because if breeders were forced the hard way, they could in the beginning switch to the still existing parent club or later quit the club and still continue breeding registered dogs.

Coat was of course not the only confirmation issue that we focused on. Pigmentation (especially of the eyes) was and is, also gets a lot of attention. Although there is a variability in the eye colour, the very light eyes from the past do not emerge anymore.

Temperament

Temperament was rather “strong” in many dogs in the beginning. The pressure from the media due to the aggressive dogs problems made the Kuvasz potentially endangered. However, breeders invested a lot in socializing their puppies. We rarely hear about a Kuvasz that shows aggressive behavior. And if so, it is invariably the owner that made the fault in the training of the Kuvasz. If this happens the club will assist the owner to “repair” the problem, or, if this doesn’t work, assists in re-homing the dog. Till now we seem to be rather successful with this. Almost all dogs can be offered new homes through the cub.

Health

Kuvasz health cochlear deafness

- KVN in 1986:
 - “Some relation to pigmentation defects”
- University in 1989:
 - Recessive gene related to pigmentation
- Club policy:
 - Avoid doubling of pigmentation defects like light to even yellow eyes, pink spots on nose/lips
 - Result: no cases reported since 1987 in Holland
 - Last reported case in 1991 in Germany

KVN operational model



- *Crew of BIC proposed by board and appointed or dismissed by AGM
- *Breeding center reports to AGM
- *If board resignes for whatever reason, the crew of the Breeding Information Center does not need to be solidary
- *New board will appoint new committees
- *If board wants a new Breeding Information Center crew, it needs to propose that to the AGM
- *Extra protection layer to preserve knowledge, experience

As mentioned before, four health problems needed attention when I just started as a chairman of the Breeding committee: cochlear deafness, hipdysplasia, OCD en microphthalmia in combination with juvenile cataract. Later, in the 00's, PRA became a very important problem that in my opinion was the biggest threat ever for the survival of the Kuvasz.

Cochlear deafness

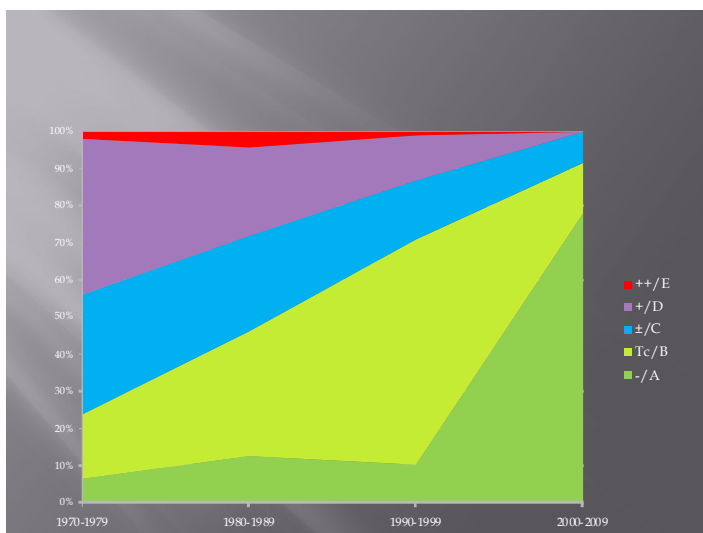
Cochlear deafness is caused by degeneration of epithelial cells in the inner ear in young dogs. The degeneration starts very early and is usually complete at 12 weeks of age. It means that this type of deafness can be detected in the litter check-up. In, for example, the Klub für Ungarische Hirtenhunde it is a routine check which is also published. A complicating factor is however, that the deafness does not always becomes complete, and can also be unilateral.

Several cases in Germany and Holland were reported in the 70's and beginning of the 80's. In the first litter I dealt with as an official of the club, there were 2 cases reported to the club. During entering all the data, I was struck by the fact that in several cases pigmentation defects were seen in closely related dog. When we asked the University in Utrecht about this all, the answer was that deafness in white dogs was a fact of life. This was an unsatisfactory answer, and we decided on our own to avoid "doubling" of pigmentation defects. This decision was taken in 1986 or 1987. Things like pink spots on usually black surfaces (like lips, nose) and very light eyes were warning signs for us. About 2 years later, the University of Utrecht published about a postulated gene for deafness, related to pigmentation...

Anyway, it is remarkable, that we had no new cases since the moment that we introduced this policy.

Hip dysplasia

In the 70's breeders in the parent club started to test their dogs on hip dysplasia. The results were rather disastrous. In the period 1970-1979, 159 dogs were tested (36% of the total number born) and only 6% was rated HD – (the Dutch equivalent of HD A at that time). Another 18% scored HD Tc (~HD



B). So 76% of the dogs tested had some form of dysplasia. It meant practically that there was hardly any room for breeders to choose: bitches with HD + scores simply had to be used to get on with breeding.

The scores compared badly to the scores within the KfUH. But both systems were not fully comparable. At more than one occasion differences in scores in the same dog were noticed: the Dutch rating was always worse. An explanation could be that the central

Dutch panel assessed two X-rays, taken in different positions, instead of one.

Despite the apparently harsher assessment, the KVN always stuck to her rules, and never used the exception option. The reward can be seen in the graph: in the last decade no HD E, no HD D and about 90% of the dogs scored a rating of HD A or B. I must add however, that the spectacular increase in HD A coincides with a change to the FCI rating system, but as far as we have noticed, this new rating system affects mainly the ratings -/A and Tc/B, as you can see that the improvement in the other grades is almost linear.

Osteochondritis dissecans (OCD)

Kuvasz health OCD

- Some cases of OCD
 - 15 cases from 1980-1995
 - Nutritional problem?
 - Calcium metabolism issue?
 - Is OCD a symptom or a disease?
 - Nutritional progress
 - No unequivocal test available
 - Affected on X-ray is really affected
 - Unaffected on X-ray gives no certainty
 - Our conclusion: No further test requirement yet

OCD, and probably to even a minor extent Elbow Dysplasia (ED), is a rather rare condition in the Netherlands. We had about 15 cases in the 80's, but after that no new cases were reported. Is this an underreporting and do we miss something? Or has it really be reduced in frequency and maybe severity?

As the population is rather small, we think we have a rather good view on our population so we tend to reject

the underreporting. But why does it not emerge anymore? Maybe a change in nutrition is responsible for this. The addition of supplements, especially calcium was usual in the 70's and 80's but was discouraged strongly later.

But apart from the incidence, we do not believe that OCD is a disease as such, but more likely a symptom of an underlying insufficiency of the calcium metabolism. So we pay attention to every bone anomaly, even of the teeth. But in the end, we have no reason at the moment to demand a test. Apart from that, we do not have the faith that an OCD-test via an X-ray is 100% conclusive. We have seen too many false negatives in the past. So we did not implement a compulsory test for OCD or ED.

Kuvasz health juvenile cataract/microphthalmia

- A few litters affected
 - 4 cases in 2 litters in 1986
 - 1 other case in Germany in 1989
 - No clear cut genetic basis
 - Viral cause can not be excluded
 - Our conclusion: Vigilance, no further action

Juvenile cataract/microphthalmia

Kuvasz health PRA

- The threat of PRA, including all consequences, was presented to the breeders
- Dutch breeders decided to:
 - Test clinically (ECVO) all breeding stock
 - Accept the RTR system as a voluntary tool in the selection procedure
- As soon as DNA test (OptiGen) became available, it was adopted by all breeders:
 - All breeding stock was tested immediately
 - No affecteds were found
- DNA testing became required as standard test

In the first few months as board member responsible for breeding matters, we were notified that in 2 litters there were 4 puppies developing juvenile cataract, probably as a result of the parallel developing microphthalmia (small eye ball). Also due to the small number of cases and lack of documentation we could not exclude nor confirm a genetic basis for this. Later literature suggested a intrauterine viral infection as possible cause. We closed the dossier and only remain vigilant. Till now only

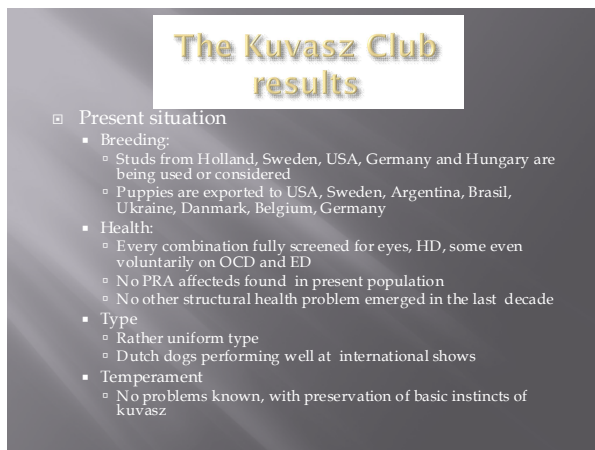
one case was reported a few years later in Germany.

Progressive Retina Atrophy (PRA)

The report of several PRA cases in Germany, Sweden and the USA shocked the Kuvasz world. and the cases of unexplained blindness that we had on file already suggested from the start a widespread problem. Pedigree research indicated that the genetic anomaly was also spread in Hungary, which is confirmed by the DNA-results later. In close co-operation with the breeders a clinical screening protocol was designed and implemented (ECVO/DOK). No affecteds were found during 2 years of testing. Even stronger: no other eye condition was diagnosed in the breeding population. As soon as the DNA test came available we switched to this test for screening our breeding stock. It revealed several carriers.

Despite the emergence of an atypical form of PRA in Germany, we still believe that the DNA test is the only reasonable and conclusive test for prcd-PRA. No clinical test is required in the Netherlands. But if necessary, we will not hesitate to implement a clinical test again.

General results



The Kuvasz Club results

- ▣ Present situation
 - Breeding:
 - Studs from Holland, Sweden, USA, Germany and Hungary are being used or considered
 - Puppies are exported to USA, Sweden, Argentina, Brasil, Ukraine, Denmark, Belgium, Germany
 - Health:
 - Every combination fully screened for eyes, HD, some even voluntarily on OCD and ED
 - No PRA affecteds found in present population
 - No other structural health problem emerged in the last decade
 - Type
 - Rather uniform type
 - Dutch dogs performing well at international shows
 - Temperament
 - No problems known, with preservation of basic instincts of kuvasz

The consistent and ethical breeding by our breeders has lead to a population we can be proud of. We achieved a higher level of genetic diversity than before. The fact that KC ruling limits the use of studs has lead to the choice of a variety of males for the dutch population; many studs used are living abroad. Despite that, type remained rather uniform, although an experience person can see differences between breeding lines.

All breeding stock is being tested for the relevant medical problems. Breeders produce homogenous types, with differences on details between lines. But health is the denominator in common!

Apparently this quality and reliability is noticed abroad. Dutch breeders export to many countries, including the USA, Brasil, Ukrain and many other countries.

Appendix

Views of the database

It is always difficult to imagine how a database looks like. For the interested people I will release some screendumps, showing the parent database first, and then the web version, which is always a bit simpler to keep it for the user more clear and friendly. Not all views that are available, are published in the webversion, and some view have been merged.

Main screen

The screenshot shows a complex web interface for a dog database. The main focus is on a dog named 'Asvany vom Gutenberg'. The interface is divided into several sections:

- COAT:** Type (some swirls), Color (white), Tail Frim (typical), Tail Hair (generously healthy).
- PIGMENT:** Eye (dark brown), Nose (black), Lips (complete), Skin (slate).
- STRUCTURE:** Shape (long), Height (average), Chest (broad/loose), Back (straight/topline).
- GAIT & MOVEMENT:** Gait (soft), Coming (straight), Going (straight), Angulation (straight/heels).
- Registration:** NHSB 1.563.904, Reg # 10228, born 26-2-1988.
- Parents:** Gutenberg, vom (sire) and Herceg vom Felsenmeer (dam).
- Offspring:** WKHS HD Tc (offspring # 9) and HD # 5.
- Owner/Breeder:** Jürgen Händschke.

At the bottom, there is a table listing other dogs in the database:

Sukelyas Atyad Tölj	NHSB 1.702.538	16-3-1990	Bell vom Quacksalber	
Sukelyas Atúrinn	WKHS HD Tc	NHSB 1.702.539	16-3-1990	Bell vom Quacksalber
Sukelyas Azaath	NHSB 1.702.537	16-3-1990	Bell vom Quacksalber	
Sukelyas Atyga	WKHS HD L	NHSB 1.702.545	16-3-1990	Bell vom Quacksalber
Sukelyas Atya Ayura	NHSB 1.702.540	16-3-1990	Bell vom Quacksalber	
Sukelyas Atyra	WKHS HD L	NHSB 1.702.543	16-3-1990	Bell vom Quacksalber
Sukelyas Anelri Askur	WKHS HD L	NHSB 1.702.541	16-3-1990	Bell vom Quacksalber
Sukelyas Abara	NHSB 1.702.544	16-3-1990	Bell vom Quacksalber	

The main screen in the parent database is being filled with lots of details and summaries from related files. Also pictures are shown in this 2 generation view.

There are links to several related files, and also to the puppies this specific bitch or dog produced.

The screenshot shows a simplified web interface for a dog database. The main focus is on a dog named 'Edeleny-Kerti'. The interface is divided into several sections:

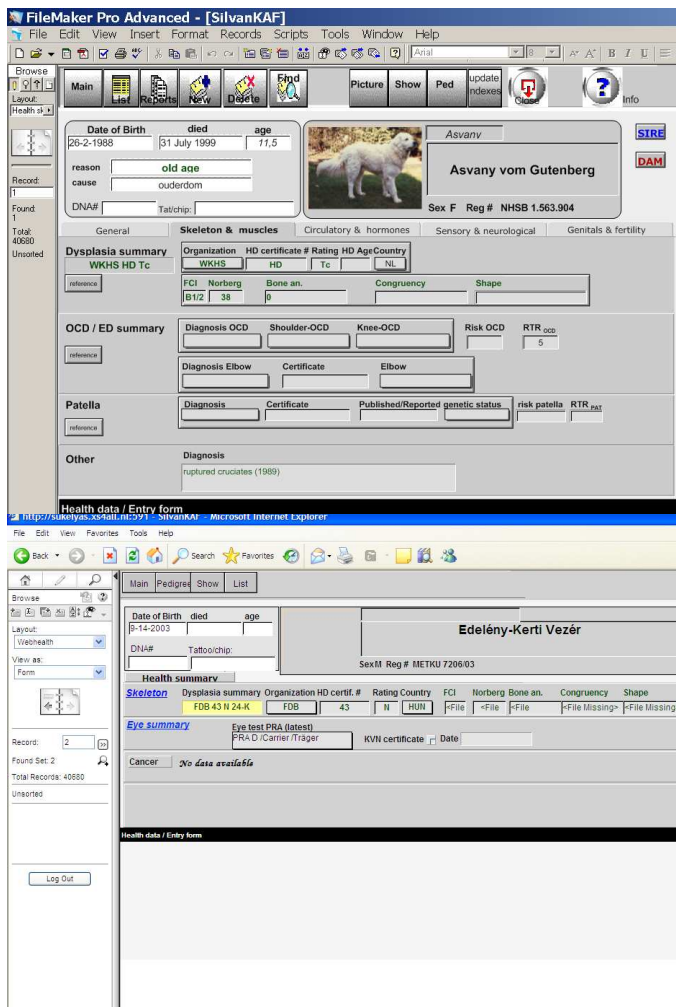
- Kenel:** Call name (Edeleny-Kerti), Reg # (METKU 7206/03).
- Parents:** Edeleny-Kerti Vezér (sire) and Kertem-Szépe Denelli (dam).
- Offspring:** FDB 43 N 24 K (offspring # 33) and HD # 5.
- Owner/Breeder:** METKU 4224/98, FDB 17 1 - M (G) 34, PRA V / Normal / Frei.

At the bottom, there is a table listing other dogs in the database:

Names offspring	HD offspring	Reg # offspring	Birthdate	Partner name
Edeleny-Kerti Göbög		METKU 8371/09	1-26-2009	Anyai
Edeleny-Kerti Csabi		METKU 8372/09	1-26-2009	Anyai
Syöng-Vezér vom Drachenfels	K.F.U.H. HD A1	KUZ 12422	5-14-2007	Eszbontó Lány Bárány
Galina-Jácint vom Drachenfels		KUZ 12423	5-14-2007	Eszbontó Lány Bárány
Göla-Grace vom Drachenfels		KUZ 12424	5-14-2007	Eszbontó Lány Bárány
Syöng-Bizsu vom Drachenfels		KUZ 12428	5-14-2007	Eszbontó Lány Bárány

The web view has been simplified. The user can perform a search on every field displayed. Scrolling to the parents is implemented: the blue button with "Info" will show a similar view with that dog as primary individual

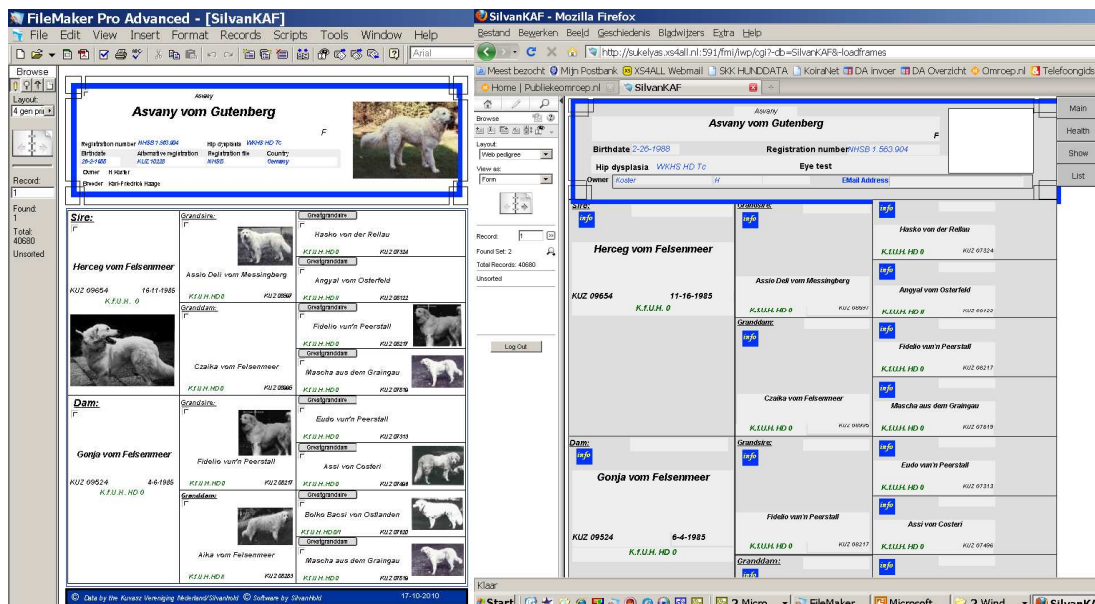
Health screen



The health file is divided in 5 sections: General, Skeleton and muscles, Circulatory and hormones, Sensory and neurological, and Fertility. I show here the Skeleton part. You may notice that we have the opportunity to file a lot of details if necessary.

The web version is a summary field. Not every detail is released. Some clinical details are not shown yet, but might be released in a next version. Data on OCD and ED are not yet released as they are not yet obligatory tests. We might decide otherwise in the future.

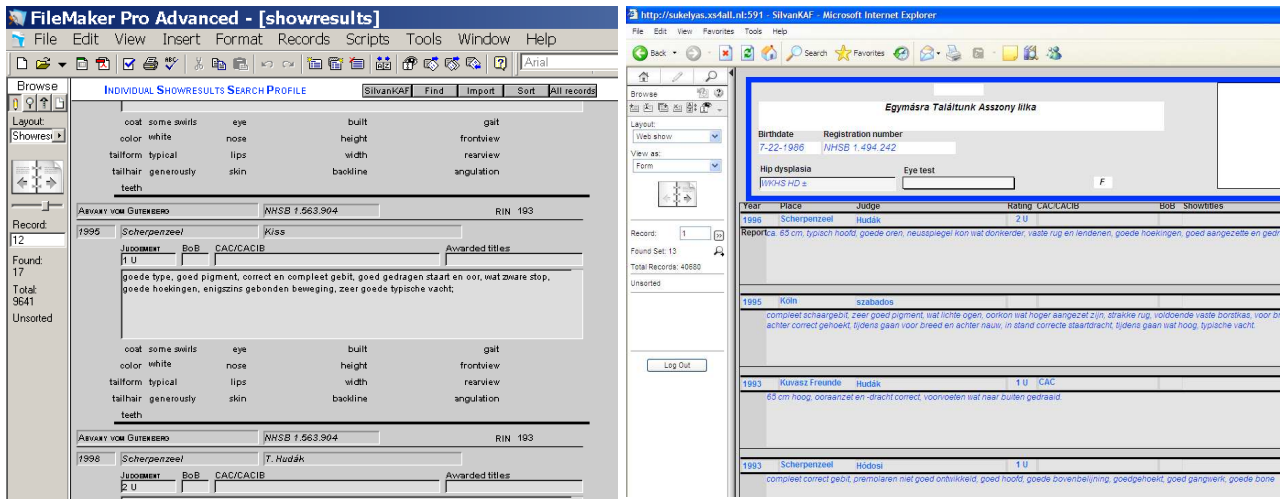
Pedigree screen



The pedigree (here shown in a small size) is similar to the web version (on the right). As you can notice, the images fail in the pedigree, unfortunately.

A disadvantage is the need to scroll in the web version. I cannot avoid this if I want the text to be readable.

Show results



Show results are filed in the language in which they were reported. There is no significant difference between the parent database (left) and the webversion (right) apart from the lay-out.

Video and image screen



The video and image screens are identical in both versions. However I have not yet succeeded to publish the videos and images on the web. I am working on it.