Established For the Members, By the Members ..... Working Together, the Possibilities are Endless!

Hello AKKPS Members!

We have received many questions in regards to DNA timing and report delays with UC Davis DNA Parentage Verification Reports.

The AKKPS reached out to UC Davis and had a lengthy conversation. We would like to update and educate the Society with the information gathered.

The AKKPS and UC Davis worked together to produce this document for the members.

Please take a moment to read the Educational Section of the akkps.org website to learn more about Parentage DNA Verification at UC Davis (click here).

The AKKPS would also like to remind members the importance of updating the status of all animals under their My Animal section of the AKKPS Member Portal.

It is very important that all AKKPS Members read through this information in its entirety please.

UC DAVIS PV TEST INFORMATION

Delayed PV DNA Test Results

- Parentage Verification (PV) DNA results usually come back within 15 business days of receipt of samples as long as the correct parents are submitted for comparison on the original test request.

- UC Davis has a 98% confidence/accuracy when qualifying a sire and dam to an animal on a Parentage Verification Test. Other types of DNA Parentage Verification Tests only require an 85% confidence/accuracy rate.

- UC Davis should NOT be relied on to determine parentage. They should be used to confirm parentage.

- There is a risk of not being able to qualify parentage when Field Breeding (multiple boars and multiple sows being bred) and co-mothering especially when the animals are closely related. This can affect the confidence that UC Davis has in reporting qualifications and can result in unresolved parentage as well as longer test times.

- In a very small number of cases, UC Davis is not able to determine the correct sire and/or dam due to closely related animals being field bred. Closely related animals that are select bred (one sire and one dam paired together for breeding by themselves) is a way to prevent the unresolved parentage.

Reasons PV Tests can be delayed

- If hair samples are of poor quality (not enough hairs with root bulbs attached or poorly packaged samples), initial testing gives incomplete results/markers. More hairs must then be used to retest the sample to get the missing types/markers. This starts the entire process for UC Davis over and these cases lose their place in the queue.

- When multiple sires and dams are being compared, especially if any are closely related, additional marker data is often needed to find the correct mating pair. This requires more hairs be tested and starts the entire process over for UC Davis. Retesting for more data also puts the case in a

new queue that requires a senior analyst to review. These steps require more time.

- When all possible sires and dams are not added to the original test request and the correct dam and/or sire is missing, samples are retested to confirm results before exclusions can be reported. This requires more hairs be tested and starts the entire process over for UC Davis causing these cases to lose their place in the queue. These steps require more time.

- When new parents are added after the original test results have been reported, there can be delays as the analysis process starts over again for UC Davis. If the additional possible dams/sires do not qualify, the case may require additional testing, and a senior analyst to review. These steps can cause additional delays.

Reasons PV Tests can come back as not a match for the sire and/or dam

- All possible sires and dams were not listed on the original PV test. New parents can be added to the test. When new parents are added, this will cause a delay as the comparison process starts over again for UC Davis.
    - Resolution: Enter all possible sires and/or dams on the original PV test submittal.

- Hair samples from the sire and/or dam were mixed up by the breeder when sent into UC Davis.
    - Resolution:
        i. Owner pulls a new hair sample from the parent in question
        ii. Request the following from UC Davis:
            - a Genetic Marker Test
            - a Match/Comparison test
            - a PV test on the new parent sample.
        iii. Once the 3 test results are back, notify the AKKPS with the full reports and the Herd Book will be updated with the new DNA case number
        iv. The final step is to add a new PV request using the new UC Davis case number for the parent to the current DNA case for the offspring.

TIPS for DNA PV Testing & Sample Collection

PV Test Request & Adding New Parents for Testing

- Enter ALL possible sires and dams on the initial test request - this will get your results back more quickly

- Ensure plenty of hairs with root bulbs attached are submitted from each pig being tested. Retests require more of the sample to be used and if the sample runs out before analysis is completed, a new sample will be requested to complete the test request.

DNA Sample Collection

- Use a paper envelope - DO NOT USE PLASTIC BAGS as they collect moisture which compromises and decomposes the hair samples

- Label the sample envelope with the following information. AKKPS has developed a printable form (click here) that can be printed and attached to the envelope.
    - Sample number
    - AKKPS Name
    - AKKPS Number
    - Color
    - Sex
    - ID number

- When collecting samples look for the ROOT BULBS at the end of the strands of hair. The DNA can only be collected from the root bulb, not the shaft of the hair.

- Send in more hair per sample than you think is needed in case further testing on the sample is required.

- Pull hair and apply an ID method to the piglet at the SAME time - this will help avoid mixing up hair samples with another animal

- Record the ID # and method on the envelope and test entry form - this will help should there be a hair mix up

- Use the optional picture upload feature to add a picture of the pig to its record- this will also help should there be a hair mix up. Take a picture that shows unique markings on the pig.

Entering AKKPS Information on the PV Test Request

- UC Davis is adding a section for Call Name in addition to the registered name and AKKPS Number found on your litter notification.

- Please do NOT add call names in the Registered Name field or self assign registered names (these are assigned now at the time of full registration). Use exactly what is on your litter notification.

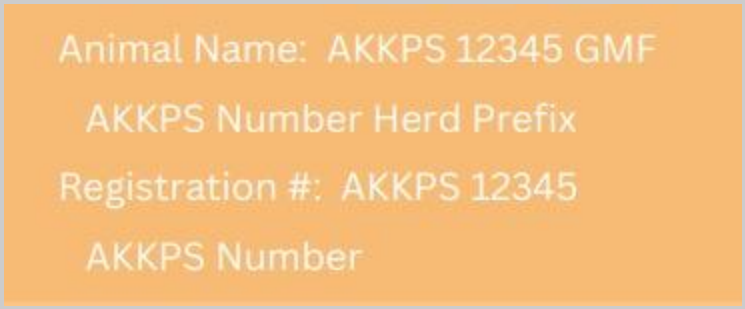
- Please note that Litter Notifications processed 1/1/23 and after have ALL the information you need to submit a DNA request including the piglets information as well as the sire and dam's information.

- It is VERY important that ALL requests and reports are affiliated with the AKKPS in case information needs editing during the registration process.

- Currently AKKPS registration items are a 24 to 48 hour turn around. In order to keep this time frame it is VERY important that DNA information is entered correctly.

- If you have already submitted DNA requests and they are not correct don't worry! They will be corrected for you just try to remember on the next round of submissions

- There are written and video help guides (click here) on the AKKPS.org website.



UPDATING YOUR MY ANIMALS IN THE MEMBER PORTAL

It is VERY IMPORTANT to please keep your MY ANIMALS statuses UPDATED IN THE AKKPS HERD BOOK via the AKKPS Member Portal.

STATUS UPDATE HELP GUIDE (click here)

In no way is the AKKPS encouraging or suggesting that all pigs be fully registered with breeding rights.

All animals that leave your farm should be on Full Registration, Companion Animal or Animal for Harvest pedigrees and should be transferred to the new owner to keep your My Animals up to date in the AKKPS Herd Book.

All 3 registration types are included in the yearly AKKPS Membership Dues.

When logged into the AKKPS Member Portal go to MY ANIMALS and on each pig's information page you have the option to CHANGE each pig's status.

In your MY ANIMALS you can also sort by each type of status (pending, full, animals for harvest, companion animals, under observation and deceased).

For animals that are not fully registered and are moved by the breeder to a status other than Pending - If the breeder wants to fully register the animal, the

breeder can move the animal back to pending to fully register as long as the pig is still in their name.

It is strongly advised to apply an ID status (ear tag, microchip or tattoo) to ALL animals by the time they are weaned and either fully registered or their status is changed. This way the ID method matches the type of pedigree they are attached to.

The ID method number can be entered when you change the status of the animal or if the pig is fully registered.

Please remember once an animal is harvested, the animal's status should be updated to deceased.

Please do not hesitate to reach out if you have any questions to registrar@akkps.org