



Verein der
Neuweltkameliden
Schweiz



Beratungs- und
Gesundheitsdienst für
Kleinwiederkäuer

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**UNIVERSITÄT
BERN**

Vetsuisse Faculty
Clinic for Ruminants
Institute of Genetics

Prevalence of coat colour traits and congenital disorders of South American camelids

To whom it may concern,

within a master thesis we are investigating which genetic traits are present in South American Camelids. This includes, for example, investigating the heredity of the different coat colours, but also to find out which anomalies occur sporadically or even more frequently in our llamas and alpacas. In cooperation with the Beratungs- und Gesundheitsdienst für Kleinwiederkäuer (Advisory and Health Service for Small Ruminants) and the Verein der Neuweltkameliden Schweiz (Swiss Association of South American Camelids) we created a questionnaire.

We kindly ask you to fill in the questionnaire by 31st May 2019

Thank you very much for your participation!

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1. General

1.1 Which animals do you keep?

- ☐ Llama ☐ Alpaca ☐ both

1.2 How many of these animals do you keep?

1.3 Which breeds do you keep?

- ☐ Huacaya Alpacas ☐ Wooly Llamas ☐ other
☐ Suri Alpacas ☐ Suri Llamas _____
☐ Classic Llamas

1.4 What is your motivation to keep these animals? Multiple answers are possible

- ☐ Hobby ☐ Production: Wool ☐ Animal-assisted
☐ Trekking ☐ Herd protection activities
☐ Breeding ☐ Zoo ☐ other
☐ Production: Meat _____

1.5 Since when do you keep South American Camelids? Please state the year.



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2. Coat traits

2.1 Which coat colours do your animals have? Please indicate the number of animals which have this coat colour. If an animal is multicoloured, you can list the animal several times.

- | | |
|--|---|
| ☐ Blue-eyed white _____ | ☐ 301 MB Medium Brown _____ |
| o If yes: are/were these animals | ☐ 410 DB Dark Brown _____ |
| deaf? | ☐ 360 BB Bay Black _____ |
| ☐ Yes ☐ No | ☐ 500 TB True Black _____ |
| ☐ 100 W White _____ | ☐ 401 LSG Light Silver Gray _____ |
| ☐ 201 B Beige _____ | ☐ 402 MSG Medium Silver Gray _____ |
| ☐ 202 LF Light Fawn _____ | ☐ 404 DSG Dark Silver Gray _____ |
| ☐ 204 MF Medium Fawn _____ | ☐ 408 LRG Light Rose Gray _____ |
| ☐ 205 DF Dark Fawn _____ | ☐ 211 MRG Medium Rose Gray _____ |
| ☐ 209 LB Light Brown _____ | ☐ 306 DRG Dark Rose Gray _____ |

2.2 Which coat patterns do your animals have? Please indicate the number of animals which have those coat pattern.

- | | | |
|--|--|-------|
| ☐ Uni | (only one colour) | _____ |
| ☐ Pinto | (two or more colours on a large surface) | _____ |
| ☐ Speckled | (two or more colours on a small surface) | _____ |
| ☐ Appaloosa/Spotted | (two or more colours, spots) | _____ |
| ☐ Other _____ | | _____ |



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3. Anomalies

3.1 Have you observed the following anomalies in your animals in the last 5 years?

Head Area

- ☐ Choanal Atresia
- ☐ „Wry face“
- ☐ Cleft palate
- ☐ Congenital cataract
- ☐ Not/insufficiently developed lacrimal duct
- ☐ Microphthalmia or no eyes at all
- ☐ Congenital deafness and not Blue-eyed white
- ☐ Deformed ears
- ☐ Brachygnathia inferior
- ☐ Brachygnathia superior

Muskuloskeletal

- ☐ Angular limb deformities
- ☐ Polydactyly
- ☐ Syndactyly
- ☐ Hyperextension of the fetlock joint
- ☐ Axial rotation of the limbs
- ☐ Spiral toe growth

Reproduction

- ☐ Cryptorchism
- ☐ Atresia vulvi
- ☐ Hermaphroditism
- ☐ Supernumerary teats
 - If yes: were they producing milk?
☐ Yes ☐ No
- ☐ Increased infertility
 - o If yes: Please comment on how you experienced the infertility: _____

Other

- ☐ Atresia ani
- ☐ Hernia
- ☐ Crooked tail



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3.2 Have you had animals showing several of these deformities in the last 5 years?

☐ Yes. Which ones?

☐ No

3.3 Have you observed malformations in the last 5 years which are not listed here?

4. In conclusion

4.1 In case of a follow-up study: would you be willing to make your animals available for more detailed genetic analyses?

☐ Yes (please fill in the address field completely)

☐ No

4.2 Do you want to be informed about the further course of the project and the final evaluation?

☐ Yes (please enter your E-Mail)

☐ No

Your contact details

Name _____

Address _____

Postcode, City _____

E-Mail _____

Phone Number _____

Information on data protection

All personal data will be treated confidentially and will not be passed on to third parties. Your data will only be used in the context of this master thesis. The results of the study can be published, but it will not be possible to draw conclusions about the identity of the participating person.