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World Simmental Fleckvieh Federation
www.wsff.info

European Simmental Federation
www.evf-esf.info

Simmental cattle a breed with high potential!

The global development in the climate issue is increasingly preoccupying agriculture. What can we contribute so that the supply of high-quality food can be as nature and environmentally friendly as possible. Some even ask themselves whether we still need animal food at all! However, this question can be answered quite easily. If we take a close look at our globe, we find that 71% of the total area of about 46 billion hectares consists of water and only 29% or 13 billion hectares is land. If we then subtract unproductive areas such as wasteland, desert, ice and forest from this, we are left with just under 5 billion hectares of agricultural land. Of this, only 1.5 billion hectares are arable, which means that 3.4 billion hectares are grassland. This grassland can only be made usable for human nutrition by large animals, especially ruminants. If we compare a DIN A4 sheet with the entire surface of the earth, only a piece the size of a business card remains for the production of food. From this business card 70% are again pure grassland. Globally seen, a nutrition of the world population without cattle is unthinkable, even impossible. This fact should be taken into account in the discussions about the climate impact of cattle farming. We can therefore continue to proudly breed our cattle. The high potential of Fleckvieh-Simmental becomes apparent just in this situation. Numerous studies prove the positive effect of the Simmental breed in this context. The fact that Fleckvieh-Simmental can produce both milk and meat is reflected in the studies. In addition, there is the robustness and resilience of Fleckvieh-Simmental. It is now up to us to use these advantages and to further develop our breed in this sense. But for this we need a close international cooperation and an intensive exchange of experiences and developments. Something the WSFF is willing to do and also invites us to do. I am looking forward to many interesting discussions and conversations at the different occasions where we meet.

Until then much joy and success with the Fleckvieh-Simmental breeding

Sebastian Auernig
President

Fleckvieh-Simmental eine Rasse mit hohem Potential!

Die weltweite Entwicklung in der Klimafrage beschäftigt immer mehr auch die Landwirtschaft. Was könne wir dazu beitragen, damit die Versorgung mit hochwertigen Nahrungsmitteln möglichst natur- und umweltschonend erfolgen kann. Einige stellen sich sogar die Frage, ob wir tierische Lebensmittel überhaupt noch brauchen! Diese Frage lässt sich allerdings ganz leicht beantworten. Wenn man unsere Erdkugel genau betrachtet, so stellen wir fest, dass die Gesamtfläche von ca. 46 Mrd. ha zu 71% aus Wasser besteht und nur 29% oder 13 Mrd. ha Landfläche sind. Wenn man dann davon unproduktive Flächen wie Ödland, Wüste, Eis und Wald abzieht, verbleiben knappe 5 Mrd. ha landwirtschaftliche Nutzfläche. Davon sind nur 1,5 Mrd ha ackerfähig, d.h. 3,4 Mrd. ha sind Grünland. Dieses Grünland kann nur über große Tiere, vor allem Wiederkäuer für die menschliche Ernährung nutzbar gemacht werden. Vergleichen wir ein DIN A4 Blatt mit der gesamten Erdoberfläche, so bleibt nur die ein Stück in der Größe einer Visitenkarte für die Produktion von Lebensmitteln über. Von dieser Visitenkarte sind nochmals 70% reines Grünland. Global gesehen, ist eine Ernährung der Weltbevölkerung ohne Rinder undenkbar, ja unmöglich. Diese Tatsache sollte in den Diskussionen rund um die Klimawirkung der Rinderhaltung berücksichtigt werden. Wir können also ruhig weiterhin stolz unsere Rinder züchten. Das hohe Potential von Fleckvieh-Simmental wird gerade in dieser Situation erkennbar. Zahlreiche Studien belegen die positive Wirkung der Rasse Fleckvieh-Simmental in diesem Zusammenhang. Die Tatsache, dass Fleckvieh-Simmental sowohl Milch- als auch Fleisch produzieren kann, schlägt sich in den Studien nieder. Dazu kommt noch die Robustheit und Resilienz von Fleckvieh-Simmental. Es liegt jetzt an uns diese Vorteile zu nutzen und unsere Rasse in diesem Sinne weiter zu entwickeln. Dazu brauchen wir aber eine enge internationale Zusammenarbeit und einen intensiven Austausch von Erfahrungen und Entwicklungen. Etwas wozu der WSFF gerne bereit ist und auch dazu einlädt. Ich freue mich schon auf viele interessante Diskussionen und Gespräche bei den verschiedenen Gelegenheiten wo wir uns treffen.

Bis dahin viel Freude und Erfolg bei der Fleckvieh-Simmental Zucht

Sebastian Auernig
Präsident

The World

Simmental Fleckvieh Congress

coming to

Canada

in 2024

July 29 – Aug 4, 2024

Calgary & Olds, AB

General Assembly of Fleckvieh Austria 2023
Positive review of a special year

Ing. Reinhard Pfleger, Fleckvieh Austria

The General Assembly of Fleckvieh Austria was marked by the appreciation of breeding achievements. At the same time, it was possible to look back on an extraordinary year 2022 with the successful organization of the Fleckvieh World Congress in Austria and the National Fleckvieh Show in Freistadt as breeding highlights. Words of appreciation and gestures for two personalities of Austria Fleckvieh breeding on the occasion of their round birthdays gave the General Assembly a very personal touch.

Full members and thus the basis of Fleckvieh Austria are those 11 breeding associations in Austria that keep a herd book of the Fleckvieh breed. In dual purpose 13.918 breeding herds with 312.174 herdbook cows are under performance recording. In the meat sector (pure beef) there are 579 breeding herds with 3.375 herdbook cows. 75 percent of the Austrian herdbook cows are of the Fleckvieh breed.

Representation of interests and World Simmental Fleckvieh Congress

In his report, chairman Sebastian Auernig gave an overview of the activities in the representation of Fleckvieh Austria at national and international level. With the organization of the World Simmental Fleckvieh Congress in Austria, visitors from all over the world were offered a top-class mix of expert lectures on future topics, visits to Austrian breeding farms and insemination stations and interpersonal exchange with culture and culinary delights, which was very well received by more than 200 interested parties from over 30 countries.

The awarding of the highest honorary office of international Simmental breeding to Austria in the person of Sebastian Auernig was an expression of trust in and appreciation of the work of Austrian Fleckvieh breeding by the international community.

The World Simmental Fleckvieh Congress will be remembered as the top business card of Austrian Fleckvieh breeding.

Breeding program and National Fleckvieh Show

In his report, Managing Director Reinhard Pfleger gave an overview of the wide-ranging activities that are being carried out to achieve the Association‘s objectives. The consistent implementation of measures in the breeding program Fleckvieh Austria is the basis for a successful further development of the Austrian Fleckvieh cattle. Evaluations based on data from ZuchtData assume that the Austrian Fleckvieh cattle and its breeding farms have worked successfully in the past and allow an optimistic view into the future. As the best dual-purpose breed in the world, Fleckvieh/ Simmental cattle have a good chance of becoming the cattle breed of the future in terms of economy and ecology. A central task of Fleckvieh Austria is the information of member associations and their breeding farms. This task is fulfilled with the print magazines „Fleckvieh Austria“ and „Fleckvieh Changes“ as well as the up-to-date presence on the web and social media.

The Managing Director reported on the breeding highlight of the past year, the National Fleckvieh Show in Freistadt, which was the professional highlight of the World Simmental Fleckvieh Congress in Austria. Never before could such a wide range of top Fleckvieh cows be presented. The goal of showing animals that can also play a role in the breeding program was impressively achieved with cows of every age group with the highest quality of conformation. With the qualitatively convincing offspring collections, whose representatives could also be found in the top positions in the main competition, the power of the breeding program Fleckvieh Austria was more than confirmed.

The concept of combining the National Fleckvieh Show with the RZO‘s Beef Kirtag provided an attractive offer for thousands of trade visitors and consumers at the same time. Together with the new concept of a live stream with commentary, the impressive number of more than 15.000 interested people followed the breeding progress of the Austrian Fleckvieh cattle during the entire show weekend. The National Fleckvieh Show 2022 in Freistadt will be remembered as a superlative breeders‘ festival and a successful international showcase for the achievements of Austrian Fleckvieh cattle breeders.

Fleckvieh Breeder of the Year - deserved honours

The highlight of every General Assembly of Fleckvieh Austria is the honouring of the most successful Austrian Fleckvieh cattle breeders. The competition „Fleckvieh Breeder of the Year“ honours farms that are able to combine breeding of superior genetics with best management. The Upper Austrian breeder family Alois Schmidseder from Enzenkirchen (FIH) was awarded „Fleckvieh Breeder of the Year 2022“. Second place went to the Norbert Luschnig family from Obdach (RSTM). The 3rd place went to family Hubert Schrems from Mettmach (FIH). The Engelbert Sitka family from Miesenbach (RSTM) and the Martin Zauner family from Münzkirchen (FIH) completed the top 5. In their laudations, the association‘s managing directors Dr. Josef Miesenberger and DI Peter Stückler praised the achievements of the awarded breeding facilities and emphasised their special features.

Anniversaries

Fleckvieh Austria, in the person of chairman Sebastian Auernig, paid tribute to the AGÖF ring of honour carrier and long-time managing director Ing. Richard Pichler on his 80th birthday. On the 60th birthday of chairman Sebastian Auernig, deputy chairman Kaspar Ehammer congratulated him on behalf of the Austrian Fleckvieh Cattle Breeders‘ Association.

Words of Greetings

The Styrian hosts RSTM chairman Matthias Bischof and LK president ÖR Franz Titschenbacher gave their greetings and appreciated the achievements of Fleckvieh Austria and the honoured jubilarians. Further appreciative words of greeting were spoken by the internationally present responsible persons from Germany (Dr. Hans Ertl), the Czech Republic (Dr. Josef Kučera) and Italy (Dr. Daniele Vicario). The international partners of Fleckvieh Austria acknowledged in their words the achievements of Richard Pichler and Sebastian Auernig for the worldwide dissemination of the Fleckvieh/Simmental breed. The Managing Director of Rinderzucht Austria, DI Martin Stegfellner, highlighted current topics and underlined the heart and soul with which Fleckvieh cattle breeding in Austria is carried out by organisations and breeders.

Practical relevance through farm visit

Following the General Assembly, Rinderzucht Steiermark invited to a farm visit at the Kaufmann-Ferstl family in Trofaiach. This family of breeders has recently become known for breeding the international top bull GS DER BESTE.

Fleckvieh Austria - Honouring the Fleckvieh Breeders of the Year

Fleckvieh Austria - Congratulations for Sebastian Auernig on his 60th birthday

Fleckvieh Austria - Congratulations for Richard Pichler on his 80th birthday

Karin und Alois Schmidseder, Enzenkirchen, OÖ-FIH – Fleckvieh Breeder of the Year 2022

Fleckvieh Breeding as Teamwork

Dr. Josef Miesenberger, Managing Director FIH and OÖ Besamungsstation GmbH

The Schmidseder family's joy was immense when they learned that they are the 2022 Fleckvieh Breeders of the Year. This is the reward and recognition for many years of intensive breeding work on their farm with 50 Fleckvieh cows in the municipality of Enzenkirchen, in the Innviertel, in Upper Austria. The use of the best genetics and the most modern breeding methods were and are the supporting pillars of this success, along with enormous personal commitment.

The Schmidseders are known far beyond the borders of the FIH association area due to their breeding successes, their active participation in cattle shows and the marketing of their animals. With a total merit index of currently 121, their herd is one of the most interesting in Austria. They have often been placed among the top 10 in the evaluation for Breeder of the Year. This year Karin and Alois Schmidseder made it to the top. We congratulate them very much.

Who are the Schmidseders?

One thing is clear: for Karin and Alois Schmidseder, family comes first. They are very proud of their sons Christoph, Patrick and Lukas. I have come to know them as extremely hard-working, business-minded, straightforward, helpful people and passionate Fleckvieh breeders. They get stuck in. Alois and Karin have managed to inspire their sons Lukas and Patrick in particular for farming and Fleckvieh breeding. While Alois still works part-time as an electrician, Karin is fully involved in the farm. Lukas has been a very committed young breeder for many years; today, as a future farm takeover, he is fully focused on the tasks on the farm professionally and is one of the driving forces behind the farm's development. Patrick studied veterinary medicine and is now employed as a veterinarian at the Oö. Besamungsstation GmbH. Patrick also looks after the dairy herd on his parents' farm and is involved in all breeding decisions. Then there is the eldest son Christoph, who only married Viktoria in 2021 and made Karin and Alois grandparents for the first time. However, Christoph has left his place in the business to his brothers. Almost too many of them would have had a say in the decisions about which bulls to use to flush the next genetically interesting calf or inseminate a cow.

Economic farm development important

Farming and breeding must be profitable, and this is what the „Pfeifer", as the house is called, pays special attention to. In the farm's development, there have always been smaller and larger steps that have been implemented with a lot of own work, in order to expand production, but also to make the work easier. The farm is situated on a slope. The structural extensions were not so easy

Family photo (Photo: Viktoria Schmidseder)
The family comes first, from left to right: Alois and Karin (farm manager couple), Sonja and Patrick, Lukas (farm takeover) and Julia, Christoph and Viktoria with Ida.

to implement. Through the new barn construction and conversion carried out in 1997, the production technology was further improved and the foundation for today's performance level was laid. In 2010, a new Agrotel tarpaulin hall was built for dry cows and pregnant heifers. This open hall also ensures a healthier start in life for the calves. Special attention is paid to cow comfort and hygiene. The raised cubicles were converted into deep cubicles. Some changes were also made in the bull rearing area. The stalls are now designed to be particularly animal friendly. In 2011, a machine hall and storage hall were built. In 2021, a milking robot, a slat pusher and feed pusher were installed. Only last year, a new calf barn and a slurry pit were built. The milk taxi helps to make the work easier and to supply the calves more evenly. „Without the milking robot, 50 milking cows would simply be too much work," says Karin. She admits that she has gone from being the biggest sceptic to the biggest supporter of the milking robot. „There is now more time for other activities. The tasks have been redistributed and one is also more flexible. I can now take care of the calf feeding even better. The cows and everything around feeding and milking is the job of the men, who know more about the milking robot," is Karin's summary.

Broad-based breeding herd

In terms of breeding, the farm is broadly positioned. I hardly know anyone who is better informed about what is available at the auctions in Austria than Lukas and Patrick Schmidseder. They have always bought genetically interesting animals, often at auctions all over Austria. These are then flushed, provided the genomic breeding values correspond. It can be as many as 10 embryo transfers per year. The embryos are often also used on heifers at two partner farms. Only in this way is the timely transfer of embryos possible given their farm size. With this strategy, one of the most interesting herds in Austria in terms of breeding is constantly being developed. Not everything is put on one card.

Current cow lines on the farm

The current success „Fleckvieh Breeder of the Year" is not only the result or the harvest from one cow family but is due to several cow lines in the barn. For reasons of space, only those three lines will be discussed here from which most bulls have been sold to insemination stations in Austria, Germany and the Czech Republic so far.

The I-line, from which the current top bull ZELDA, with a TMI of 143 one of the best ZEIGER sons, and his half-brother, the VASARI son VINICIUS, were born, has the biggest share in the success as breeder of the year. Both bulls descend from the full sister of the bull HORAZIO P*S, the HILFINGER daughter IVANA. From this cow line there are three generations of milking cows in the barn. The cow line and the hornless gene in this cow family originate from the SYLT Pp* daughter INDRA P. „This cow was bought as a calf 12 years ago from the liquidation of the herd of the Doppermann farm, one of the first Fleckvieh hornless breeders at the FIH. Today, she is the most common cow family in the barn," Lukas explains. One of the strengths of the I-line is its above-average content. In breeding from this line are promising candidates of HIROTO, GS HELLSTORM and HEPHAISTOS.

The S-line on the farm is also developing very positively and has already produced a number of insemination bulls in a short time. The foundation cow, the MANIGO daughter SAMANTA, left the farm in her 6th lactation. She was bought as a first cow with calf from the Penz farm in Lasberg. This calf, bought by the OÖ Besamungsstation later became the positive, progeny tested sire HAMMER (sire: Herzschlag). Out of a HORIZONT daughter by SAMANTA comes the HERAKLES P*S son GS HELOS, bought by Genostar. UMBERTO was sold to the insemination station REPROGEN in the Czech Republic. The IMPOSSUM son UMBERTO also goes back to SAMANTA via his dam, a WIKINGER daughter.

Not only males are sold from the Schmidseder farm, but also embryos in the form of contract flushes when it suits. This way, for example, the insemination station CRV got interesting offspring from the F-line. Embryos from a flush of the HURRICAN daughter FIONA with HUBRAUM were sold to Germany. This cow family was further developed by CRV in cooperation with Bavarian breeders. Meanwhile the very interesting bulls VIRGINIA, VARTEN and HILLER are standing at the insemination station CRV. From the MACBETH daughter FABEL the insemination station Greifenberg has the EX MACHINA son EXPRESS in use.

With so many lines, cows and bulls it is not so easy to keep track of them, so here is a brief summary. The insemination bulls from the cow lines are listed in brackets:

I-line: master cow INDRA P
(Zelda, Vinicius, Horazio P*S, Serafin P*S)
S-line: master cow SAMANTA
(Hammer, GS Helos, Umberto)
F-line: master cow FIONA
(Express, Hiller, Sven P*S, Superstar Pp*, Varten, Virginia, Wigwam)

One step ahead of time

Somehow the Schmidseders know how to recognise opportunities and developments very early. Advertising the animals up for sale via social media is a matter of course. Direct contact with the buyers helps to recognise in time what is in demand. Today, almost only genetically hornless bulls are in demand for natural breeding, others are hardly ever reared. Genetically interesting bull calves are offered to all insemination stations and, depending on the offer, are usually sold ex farm. Time does not stand still in marketing either.

In breeding, nothing works without genomic testing of the females. Participation in health monitoring is a matter of course. Embryo transfer is used intensively to make breeding use of the genetically most interesting females in the herd. Breeding value estimation is used as the basis for almost all breeding decisions.

When selecting bulls, Patrick and Lukas rely on the Optibull mating programme and their breeding intuition. It also helps when three breeders, the father Alois and his sons Patrick and Lukas, keep their eyes and ears open and exchange experiences with each other. Since the three motivated Fleckvieh breeders do not always sit at the same table and decisions, such as which bull to inseminate an animal with, are made together, a joint WhatsApp group was set up, Alois Schmidseder reports. For years, special interest has been placed on breeding for hornlessness. Meanwhile, 46 out of 120 animals in the barn are hornless.

Show successes are the best advertising

The Schmidseders have been successfully represented at all regional and supra-regional exhibitions for many years and are always ready to give excursion groups from near and far an insight into the breeding work at the farm. Lukas and Patrick are reliable persons in the support team of the FIH or the Oö. Besamungsstation GmbH. It would be going too far to list all the show successes from their career as young breeders here. One of the biggest show successes of the Schmidseder family was certainly the group victory with the HERZSCHLAG daughter ELKE at the National Fleckvieh Show in Freistadt last year, which all family members were very happy about.

The future is secured

When asked about the future of the farm, Alois answers as if shot from a pistol: „The future is secured, Lukas will take over the farm in a few years“. This is immediately confirmed by Lukas. As a breeders‘ association, we can only congratulate and express our sincere thanks for the cooperation, especially for the marketing of the breeding animals via the FIH and rejoice a little in the success.

Farm data:
Karin and Alois Schmidseder and farm transferee Lukas, Heitzing 3, 4761 Enzenkirchen

Location: 370 metres above sea level
Farm size: 46 ha total area (thereof 18 ha leased area)
Land management: 21 ha grassland, 20 ha arable land (maize silage, winter cereals, triticale, field fodder), 5 ha forest
Livestock: 50 cows, 60 heifers, 10 young bulls and 30 heifers at the partner company

Milk production:

year	cows	milk kg	fat %	protein %	f + p kg
2019	31,8	11.154	4,24	3,56	880
2020	32,8	10.334	4,29	3,72	828
2021	41,2	10.422	4,31	3,64	829
2022	48,0	9.902	4,23	3,71	786

(Photo: Berchtold)
Alois is happy with his sons Lukas and Patrick about ELKE‘s group victory at the National Fleckvieh Show 2022.

Breeding programme FLECKVIEH AUSTRIA - Progress in (almost) all areas

Dr. Christian Fürst, ZuchtData Vienna

The art of breeding is not only to improve a single trait, but to develop all relevant traits such as milk, meat, fitness, health and conformation together. In order to achieve this goal, the total breeding value, which includes the economically important traits, was already introduced 25 years ago (1998). How well is Fleckvieh in Austria on the way to this goal?

High level of performance

Table 1 shows the phenotypic performances for some important trait areas since 2015. With phenotypic performance, it must always be remembered that it can also depend on the weather/feed/price situation and also on the quality of the data, so that individual years often have only limited significance. In the case of milk yield, for the reasons mentioned, the clearly positive development for decades has slowed down somewhat in recent years, but still averages around 100 kg per year. Most meat and fitness parameters show a stable to slightly positive development. With regard to fertility parameters, the insemination index has improved slightly in the last year, the calving interval has remained largely stable.

Table 1: Development of selected phenotypic traits in Austrian Fleckvieh cattle since 2015

Trait	2015	2017	2019	2020	2021	2022
Milk (kg) – herd book, all lact.	7,220	7,393	7,790	7,893	7,801	7,842
F+P (kg) – herd book, all lact.	545	560	590	599	594	597
Carcass percentage (%)	57.3	57.2	57.3	57.3	57.1	57.2
Number of calves	3.97	3.97	4.04	4.03	4.09	4.09
Longevity (years)	3.80	3.81	3.89	3.90	3.99	3.94
Lifetime yield (kg)	28,114	28,846	30,689	31,220	32,112	32,104
Calving interval (days)	390	388.3	388.5	390.1	391.2	391.8
Insemination index	2.0	2.0	2.2	2.2	2.2	2.1
Som. cell count (in thousands)	180.1	175.5	183.3	186.5	186.7	190.1

Due to the feed and market situation (partial feed shortage, high slaughter cow prices), the useful life has decreased slightly after a longer period of time but is still pretty much four years. However, the long-term development of longevity and lifetime yield is quite pleasing.

Positive genetic trends

Genetic trends, i.e. average breeding values per birth cohort, are best suited for assessing longer-term breeding developments. An analysis of the genetic trends of the female population for the main areas total merit index (TMI), milk index (MI), beef index (BI) and fitness index (FIT) shows: For TMI, the increases from 2000 to 2010 are 1.9 and from 2010 to 2020 2.5 TMI points per year. The differences between the breeding associations in the TMI increases are small (2.2-2.6 TMI points per year since 2010). This shows the high level of breeding work and the close Austria-wide cooperation in the breeding programme.

The milk complex has already shown a largely linear increase of 2.2 MI-points per year for decades. The BI shows only a slightly positive development (+0.5 BI points per year since 2010), for the fitness index FIT the increase is increasingly stronger (2000 to 2010: 0.1; 2010 to 2015: 0.6; 2015 to 2020: 1.1 FIT points per year).

The genetic development of the fitness complex has also been quite positive in recent years. In earlier articles in Fleckvieh Austria last year it was already shown that the heavy birth rate has more than halved since 2005. To pick up another example that the positive genetic development is also accompanied by a positive phenotypic development, the course of stillbirths or deaths of female calves should be mentioned. The proportion of stillbirths, including deaths within 48 hours, has decreased since 2005 from about 2.5 by about one third to just over 1.5 percent. Including deaths from the third day onwards, there has also been a noticeable decrease. This clear improvement is also directly related to the lower heavy birth rate. Here, too, the breeding value estimates - the genetic evaluation stillbirth rate has been available since 1998, the vitality index since 2016 - and the genomic selection show their effect.

In the conformation area, there is still a very clear improvement, especially in the udder, but also in feet and legs. Both traits are only indirectly included in the TMI via the longevity and the udder health index, but they show this positive development due to their high importance in practice. The frame has largely stabilised after a long increase. This can also be seen from the development of the average cross height of first calver from the linear description. Since 2000, the cows have grown on average from about 142 to currently about 145 cm, i.e. by 3 cm. However, the increasing development has slowed down in the last few years. Weight data from slaughter cows or from auctions show that the live weight has remained stable during this period. A high weight may be an advantage especially in times of good slaughter cow prices, particularly for a dual-purpose breed. However, one should not ignore the aspects of energy efficiency, health and longevity, among others, where larger and heavier animals tend to be at a disadvantage.

Genotyping continues to rise

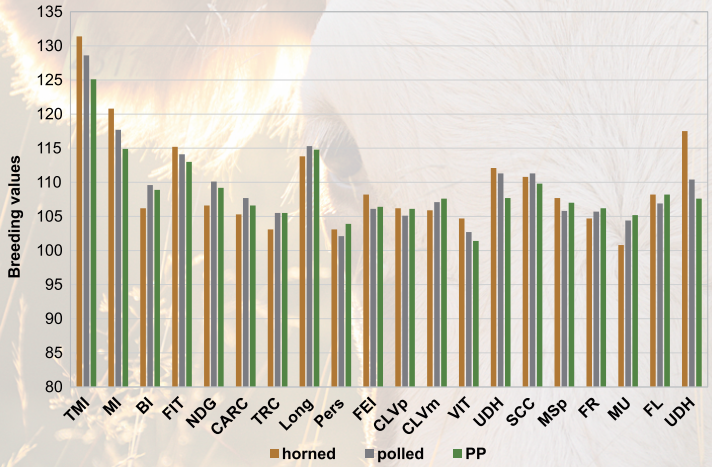
For the quality of the single-step breeding values, it is important to have as large a proportion as possible of genotyped animals that enter the genetic evaluation with phenotypic performance. Especially through the herd typing project FoKUHs it was achieved that meanwhile already 10.8 percent of the living female Fleckvieh cattle in Austria are genotyped For calves and heafes the share is on average 12.0 percent, for first calving cows 13.3 percent. The follow-up project FOKUHS HERDE and independent breeding commitment should ensure that the genotyping percentage is raised even further.

Insemination level - does polled make a difference?

The breeding programme Fleckvieh Austria aims at a share of 75 percent of all inseminations with genomic bulls. Last year genomic bulls share of 71.7 percent was already achieved, based on all inseminations with a Fleckvieh animal (i.e. without foreign breeds and without natural jumping). Of all purebred inseminations, 27.1 percent were with a genetically polled bull, a good quarter of which were purebred (7.3 percent).

More important, however, is the genetic level of the inseminations carried out. On average, the insemination level of the TMI was a very respectable 130.5. Figure 2 shows the average breeding values of the inseminations in 2022 with horned, polled (pure and mixed) and purebred polled bulls. The TMI insemination level is 131.4 for the horned bulls, 3 points lower for the polled and another 3 GZW points lower for the purebreds with 125.1. These differences in TMI come primarily from the milk, in the fitness value the differences are small, in the beef index even slightly in favour of the polled bulls. Without going into the details of the other traits, the difference in the udder breeding values is particularly striking. Here the polled bulls are 7 points below the horned bulls, the homozygot polled bulls even 10 points below. In the candidates and also in the bulls, the polled bulls also have a clear deficit in milkability, which, however, can only be seen to a lesser extent in the insemination level.

Fig. 2: Average breeding values of Fleckvieh inseminations 2022 divided into horned, polled and purebred polled (PP) (Breeding values from Dec.)



TMI = total merit index, MI = milk index, BI = beef index, FIT = fitness index, NDG = net daily gain, CARC = carcass percentage, TRC = EUROP trade class, Long = longevity, Pers = persistency, FEI = fertility index, CLVp = paternal calving ease, CLVm = maternal calving ease, VIT = vitality index, UDH = udder health index, SCC = somatic cell count, MSp = milkability/milking speed, FR = frame, MU = muscularity, FL = feet and legs, UD = udder

GS DER BESTE repeats last year's success

Table 2 lists the most used Fleckvieh bulls in the control year 2022. As in the previous year, GS DER BESTE is the best in terms of insemination numbers and is clearly in the lead with over 25,000 inseminations. He is followed by HOKUSPOKUS, also inseminated, and WINTERTRAUM, the most used genomic young bull. After second place in 2021, the mixed-polled HAMLET Pp* follows in fourth place and is again the most used polled bull. With MEMORY PP* and MOMENTUM PP* two purebred bulls are also represented in the Top 20.

The professional importance of the usual sire lines is limited as is well known, but the Top 20 go back to seven different line founders on the sire's side, as last time, with the lines HUCH dominating with six and HORROR with four offspring.

Tab. 2: The 20 most frequently used Fleckvieh bulls in the FLECKVIEH AUSTRIA breeding programme in control year 2022 (ZuchtData, 12/22)

Rank	Name	Birth year	No. of calves	TMI	MI	BI	FIT	Progeny tested	Blood-Line
1	GS DER BESTE	2016	25.444	127	123	101	105	J	DIRIGENT
2	HOKUSPOKUS	2016	18.228	134	119	109	117	J	HUCH
3	WINTERTRAUM	2019	17.265	141	118	106	134	N	HORROR
4	HAMLET Pp*	2019	16.342	136	122	121	114	N	HUCH
5	GS WUNDAWUZI	2020	13.666	142	123	112	128	N	HORROR
6	VOLLENDET	2016	13.267	129	118	90	120	J	RADI
7	GS HOERI	2019	12.413	135	127	106	118	N	HUCH
8	MEMORY PP*	2019	11.615	127	120	108	109	N	MORELLO
9	SUPERBOY	2020	10.704	135	122	110	120	N	STREIK
10	GS DELUXE	2020	10.569	139	130	117	109	N	DIRIGENT
11	GS WOWARD	2020	10.535	135	124	86	128	N	HORROR
12	VLATURO	2016	8.370	129	120	104	111	J	RADI
13	GS SPUTNIK	2021	8.323	142	123	117	125	N	STREIK
14	IQ P*S	2020	8.098	130	122	113	108	N	RENNER
15	SPARTACUS	2019	7.412	130	115	102	122	N	STREIK
16	HIROTO	2020	6.691	137	126	105	119	N	HUCH
17	WILKO	2020	6.369	139	126	105	123	N	HORROR
18	HEPHAISTOS	2019	6.267	138	119	113	125	N	HUCH
19	HAMMER	2016	6.235	125	125	97	102	J	HUCH
20	MOMENTUM PP*	2020	5.940	125	107	112	122	N	MORELLO

Summary

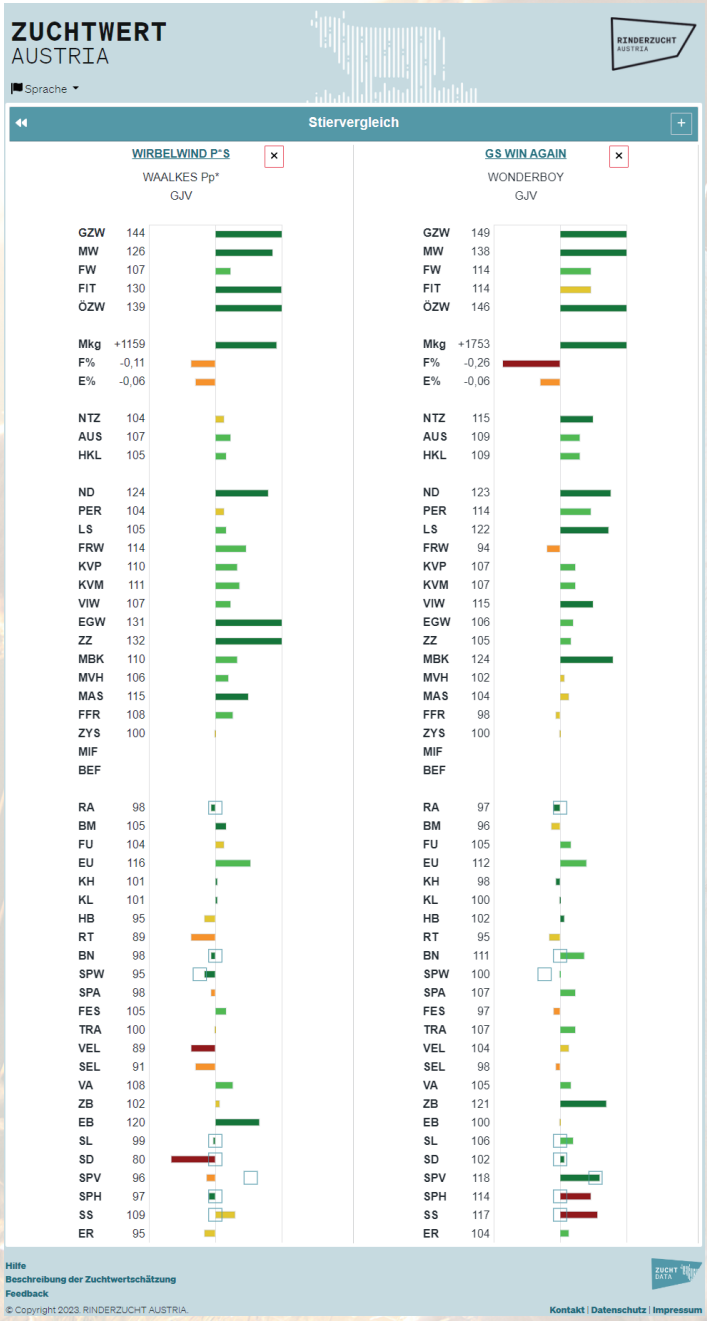
The analysis of phenotypic and genetic developments shows that it is possible to develop several trait areas simultaneously in the desired direction. Important components for this, apart from the breeding value estimation for a large number of traits, are certainly the introduction of the TMI in Austria in 1998, the common breeding value estimation and the common TMI with Germany since 2002, the genetic evaluation since 2011 and, of course, the good breeding work done by the breeding organisations and breeders. Especially for the fitness and health traits, the development could probably look even better if even more attention was paid to complete and correct data collection. With the lower heritabilities of these traits, comprehensive data collection is even more important.

In the fitness and health area, claw health, metabolic stability and energy efficiency will be the focus of breeding developments in the coming years. The introduction of a single-step breeding value estimation for claw health is aimed for this year. A complete provision of claw findings and diagnoses from as many farms as possible, ideally combined with genotyping of the cows, will significantly improve the quality of the breeding values. Even the best breeding value estimation (single step) depends on the available data!

Zuchtwert Austria - the new breeding value database!

Dr. Christian Fürst, ZuchtData

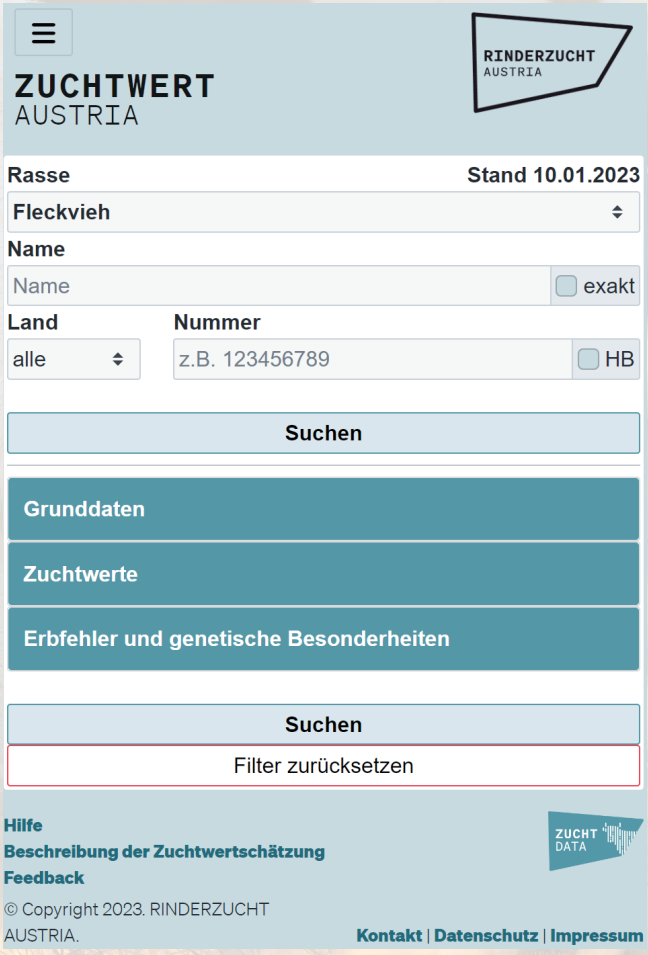
The previous breeding value database of Rinderzucht Austria, which had been used successfully since 1999, was technically somewhat outdated and therefore had to be completely reprogrammed in the last few months. At the same time, however, some innovations were to be implemented. Since 10 January 2023, the new breeding value database Zuchtwert Austria has been available under the link https://zuchtwert.at.



Graphic comparison of the bull breeding values on Zuchtwert Austria

In addition to the already proven functionalities, Zuchtwert Austria offers the following new features:

- The result list can be sorted as desired by clicking on the respective characteristic in the header.
- Additional characteristics can be added to the result list by clicking on them (Show additional characteristics).
- The (extended) result list can be downloaded as a csv file (Export results (CSV))
- You can scroll from one bull to the next directly
- Filter by bull line
- For the grandchildren of a bull you can choose between ‚as VV' and ‚as MV'.
- Print/save version (pdf-file) of the bull single page
- Option to compare bulls graphically (compare bulls, see picture)
- continuous updating of semen availability
- display better adapted to screen size (responsive design), which is particularly advantageous for mobile phones (see fig.)
- Language versions: German, English, Czech, Spanish and French are already available from the start, other languages will follow as required.



Breeding value Austria in the mobile view

In the footer of the application there is a short help on important functions, a compact description of the individual breeding value estimates and a feedback option in case there are errors or suggestions for improvement.

As usual with major changes, you will certainly have to get used to the new environment at the beginning. However, we are convinced that Zuchtwert Austria will be an even better tool to sift through the abundance of bulls and find the best ones!

ESF WG Conformation – Back to the roots of Fleckvieh cattle

Bernhard Luntz, LfL Tierzucht, Grub

In the beginning of May, the head classifiers of the European working group conformation met in the Bernese Oberland in Switzerland. Lectures and practical exercises were on the agenda, as well as adjustments to the Fleckscore evaluation system. The Swiss colleagues had prepared the 2-day meeting well and ensured optimal working conditions. The focus was initially on the international evaluations of the countries of the common breeding estimation. Dr. Krogmeier was again able to certify increasing harmonization in the quality of the results. The newly calculated derivation of the conformation traits for longevity was also eagerly awaited. Based on the current sample of approx. 200.000 young cows there were hardly any changes to the existing connections. Only the recalculation of the hock shape requires a minor adjustment. The middle grade range with digits 5 and 6 was slightly raised for the feet & legs score, with digit 9 leading to slight deductions due to the small negative correlation to meat performance. Overall, however, there are hardly any major differences in the feet & legs calculation. More than 80% of the cows receive the same score or a maximum difference of one point with the new formula.

Afterwards Dr. Ertl explained the conditions for joining the common breeding evaluation. There is great interest about this in many European countries.

The udder in focus

In the development of Fleckvieh udders, there has been a tendency towards the rear teats moving together already for a longer time. If the teats are clearly pointing inwards, there will be disruptions in the milking process. A test on around 22.000 young cows was used to determine the number of combination at which the absolute distance between the teats can no longer be described as functional. Luntz reported that the progeny classifiers in Bavaria and Baden-Württemberg recorded the distance between the rear teats in a 6-month period. Based on the results, the European group decided that narrow placement should result in a deduction in the udder score. It also responds to the development of thinner teats. There are also slight deductions for the udder in score 3. Both adaptions do justice to the functionality in the handling of the breed.

New Tool Fleckschool

A highlight was the presentation of the new project by Reinhard Pfleger, which the states of Bavaria and Austria developed together. The evaluation of Fleckvieh cows is thus even more effective and exciting. Comparative evaluations between participants can be done and analyzed immediately via FleckSchool website (via FleckScore). The participants receive the results on their smartphones at the same time and can compare themselves with the trainer. This in turn gets a detailed evaluation of all participants and the scored cows. In the subsequent comparative evaluation of the countries, directed by H. Anzenberger and G. Pollak, the system passed the initial scrutiny in the practical part optimally.

Switzerland: a cow-crazy country

The Simmental breed and the structures of milk production were presented to the participants in several lectures. Matthias Schelling, director of Swissherdbook, introcuced into the different production conditions in Switzerland. In particular the Original Simmental breed is adapted optimally to the unique cultural landscape of the Swiss mountain region. The breeders consistently remain to the functional breeding goal of the breed with a lot of passion. However, the ongoing dialogue with society is also constantly necessary and challenging here. In a special project, products made from Simmental cattle are advertised. The sustainable production of milk and beef should appeal to the consumer with a special label from the Simmental cattle. The participants were able to carry out the practical training on the Ueli Schärz farm under optimal conditions. His herd clearly shows with strong conformation the enormous quality of the Simmental cow. The breed shines with best feet & leg and udder in astonishing uniformity. In summertime his cows have to climb up to over 2000 m and produce their milk there. In fact that Simmental breeding in Switzerland is an absolute success story could be seen by the participants at the concluding cattle show in Bern. Conclusion: cows with a lot of charisma and harmony. This impression as well as the enormous hospitality of the Swiss colleagues leads that the meeting is fondly remembered by all country representatives. The family ties between the countries should also be maintained. The breeding experts are looking forward to seeing again in Italy next year.

The ESF working group conformation met with participants of 10 countries in Switzerland.

Zu den Wurzeln des Fleckviehs

Bernhard Luntz, LfL Tierzucht, Grub

Anfang Mai trafen sich die Chefbewerter der europäischen Arbeitsgruppe für Exterieur im Berner Oberland in der Schweiz. Hierbei standen Fachvorträge und praktische Übungen auf der Tagesordnung, aber auch Anpassungen beim Bewertungssystem Fleckscore. Die Schweizer Kollegen hatten das 2-tägige Treffen bestens vorbereitet und für optimale Arbeitsbedingungen gesorgt. Im Mittelpunkt standen zunächst die internationalen Auswertungen der Länder der gemeinsamen Zuchtwertschätzung. Dr. Krogmeier konnte auch diesmal wieder eine zunehmende Harmonisierung in der Qualität der Ergebnisse bescheinigen. Mit Spannung wurde aber auch die neu berechnete Ableitung der Exterieurmerkmale zur Nutzungsdauer erwartet. Anhand der aktuellen Stichprobe von ca. 200.000 Jungkühen ergaben sich kaum Veränderungen zu den bestehenden Zusammenhängen. Lediglich die Neuberechnung bei Sprunggelenksausprägung erfordert eine geringfügige Anpassung. Der mittlere Notenbereich mit Ziffern 5 und 6 wurde für die Fundamentnote etwas angehoben, wobei Ziffer 9, wegen der leicht negativen Korrelation zur Fleischleistung, zu leichten Abschlägen führt. Insgesamt ergeben sich aber kaum größere Unterschiede in der Fundamentberechnung. Über 80% der Kühe erhalten auch bei der neuen Formel die gleiche Note oder maximal ein Punkt Unterschied. Dr. Ertl führte dann noch die Bedingungen zum Beitritt in die gemeinsamen Zuchtwertschätzung aus. Hierfür besteht in vielen Ländern Europas großes Interesse.

Das Euter im Blick

Schon seit längerem ist in der Entwicklung der Fleckvieheuter eine Tendenz zu einem Zusammenrücken der hinteren Striche festzustellen. Wenn dann noch die Striche deutlich nach innen stehen, kommt es zu Störungen beim Melkvorgang. Zur Frage, bei welcher Ziffernkombination der absolute Abstand der Zitzen nicht mehr als funktional bezeichnet werden kann, wurde in einem Versuch an ca. 22.000 Jungkühen nach gegangen. Luntz berichtete, dass die Nachzuchtbewerter in Bayern und Baden-Württemberg in einem 6-momatigem Zeitraum den Abstand der hinteren Zitzen erfasst haben. Anhand der Ergebnisse hat die europäische Gruppe entschieden, dass es bei engen Strichabständen zu einem Abzug in der Euternote kommen soll. Ebenso wird auf die Entwicklung zu feineren Strichen reagiert. Auch bei Ziffer drei kommt es zu leichten Abzügen beim Euter. Beide Anpassungen werden der Funktionalität im Handling der Rasse gerecht.

Neues Tool Fleckschool

Ein Highlight war die Vorstellung eines neuen Projekts durch Reinhard Pfleger, welches die Länder Bayern und Österreich gemeinsam entwickelt haben. Die Bewertung von Fleckviehkühen wird somit noch effektiver und spannender. Durch die Internetseite Fleckschool (über Fleckscore) können Vergleichsbewertungen zwischen Teilnehmern sofort vorgenommen und ausgewertet werden. Die Teilnehmer bekommen ihre Ergebnisse zeitgleich auf das Smartphone und können sich mit dem Schulungsleiter vergleichen. Dieser wiederum bekommt eine detaillierte Auswertung zu allen Teilnehmern und den bewerteten Kühen. In der darauffolgenden Vergleichsbewertung der Länder, unter der Regie von H. Anzenberger und G. Pollak, hat im praktischen Teil das System seine Feuertaufe bestens bestanden.

Die Schweiz: ein kuhverrücktes Land

In mehreren Fachvorträgen wurde den Teilnehmern die Rasse Simmental und die Strukturen der Milcherzeugung vorgestellt. Matthias Schelling, Direktor von Swissherdbook, ging auf die verschiedenen Erzeugungsbedingungen in der Schweiz ein. Insbesondere die Rasse Original Simmental ist an die einzigartige Kulturlandschaft der Schweizer Berggebiete bestens angepasst. Die Züchter halten mit viel Herzblut konsequent am funktionalen Zuchtziel der Rasse fest. Der laufende Dialog mit der Gesellschaft ist aber auch hier ständig erforderlich und herausfordernd. In einem speziellen Projekt werden Produkte vom Simmentaler Rind beworben. Die nachhaltige Erzeugung von Milch und Fleisch sollen den Verbraucher mit einem speziellen Label vom Simmentaler Rind ansprechen. Die praktischen Übungen konnten von den Teilnehmern auf den Betrieb Ueli Schärz, unter optimalen Bedingungen, vorgenommen werden. Seine exterieurstarke Herde zeigt eindeutig die enorme Qualität der Simmentaler Kuh auf. Mit erstaunlicher Einheitlichkeit glänzt die Rasse durch beste Fundamente und Euter. Im Sommer müssen seine Kühe auf über 2000 m steigen und dort ihre Milch produzieren. Dass die Simmentalzucht in der Schweiz eine absolute Erfolgsgeschichte ist, konnten die Teilnehmer dann spätestens bei der abschließenden Verbandsschau in Bern erkennen. Fazit: Kühe mit sehr viel Ausstrahlung und Harmonie. Dieser Eindruck aber auch die enorme Gastfreundlichkeit der Schweizer Kollegen führen dazu, dass das Treffen bei allen Ländervertretern in bester Erinnerung bleibt. Die familiären Bande zwischen den Ländern sollten auch weiter gepflegt werden. Im nächsten Jahr freut sich die Zuchtexperten auf ein Wiedersehen in Italien.

Fotoauswahl für Homepage und Magazin

Teilnehmer aus 10 Nationen trafen sich zum Treffen der EVF-Exterieurgruppe in der Schweiz

The head of the ESF WG conformation Bernd Luntz in the fully occupied auditorium in Aeschi on Spiez.
Der Leiter der AG Exterieur in der EVF Bernd Luntz im vollbesetzten Vortragssaal in Aeschi am Spiez.

The farm of Ueli Schärz offered perfect conditions for the practical training of the participants
Der Betrieb von Ueli Schärz bot perfekte Bedingungen für die praktische Weiterbildung der Teilnehmer

Hubert Anzenberger, LfL during working with animal
Hubert Anzenberger, LfL bei der Arbeit am Tier

Gerald Pollak, Fleckvieh Austria during working with animal
Gerald Pollak, Fleckvieh Austria bei der Arbeit am Tier

Reinhard Pfleger, Fleckvieh Austria during working with animal
Reinhard Pfleger, Fleckvieh Austria bei der Arbeit am Tier

ESF general secretary Dr. Hans Ertl is pleased with Bernd Luntz, Reinhard Pfleger and breeder Ueli Schärz about the successful event in Switzerland
EVF-Generalsekretär Dr. Hans Ertl freut sich mit Bernd Luntz, Reinhard Pfleger und Züchter Ueli Schärz über die gelungene Veranstaltung in der Schweiz

A view into the Simmental - The cradle of the Fleckvieh-Simmental breeding
Ein Blick ins Simmental – Die Wiege der Fleckviehzucht

The BEA in Bern offered a showcase for very exteriour Simmental cows
Die BEA in Bern bot ein Schaufenster für sehr exteriurstarke Simmentaler Kühe

Grub and Vienna in June 2023

FleckSchool - New online tool

With the introduction of FleckScore in 2011, a conformation evaluation system was created in the D-A network that is geared towards optimizing the life span of Fleckvieh cows. Since then, FleckScore has been used to linearly describe more than 1.1 million animals, providing the data basis for the breeding value estimation for conformation. FleckScore is able to provide professional and qualitatively comparable results in the description of the external appearance of the animals across national borders. Via the website www.fleckscore.com, the system can now be used in 16 different languages and is thus applied worldwide. Building on this, the next step for the successful dissemination of FleckScore has now been taken with the „FleckSchool“ project.

The next step

FleckSchool is an automated evaluation program for animal assessments according to FleckScore and designed as an online application. FleckSchool allows a comparison of linear descriptions with a given level input. With its extensive evaluation possibilities it is an effective online tool for schools, working groups and young breeders associations in the holding of animal evaluation competitions of Fleckvieh cows and currently available in German and English.

Simple operation

FleckSchool is structured as an additional module of FleckScore. At www.fleckscore.com, the menu item FLECKSCHOOL takes you to the entry level for course instructors and participants (see graphic 1). As course instructor/level setter/trainer/teacher one selects the button COURSE INSTRUCTOR. After registration, the instructor can create a course, fix the number of participants with name assignment and define the number of cows to be described. The instructor also defines the type of level input for the evaluation. Here it is possible to define one or more reference givers. After finishing the creation procedure, the course will be saved and is assigned a 6-digit numerical code in the course overview. With this numerical code and the assigned participant name, the participants can now dial into the course. As a course participant/student/young breeder, select the PARTICIPANT button. By logging in with name and access code for the created course, one gets to the evaluation possibility of the selected cows, which are described with the FleckScore evaluation mask. After the complete description of the cows, the result will be sent to FleckSchool.

Extensive evaluations

When the course is finished by the instructor, automated evaluations are created by the system. As a result, several evaluations, which can also be printed as PDF, are available to the instructor (see graphics 2, 4 and 5):

- Overview of ratings and deviations compared to the reference rating
- List of results with ranking of participants according to deviation from reference evaluation

After the instructor has completed the course, the participants can also view their results in various evaluation formats and also print them out as PDFs (see graphs 6, 8 and 9):

- Own evaluations and deviations compared to the reference rating
- List of results with ranking of participants according to deviation from reference evaluation

With the button EVALUATION both instructor and participants get to another overview, in which the deviations of the individual participants per cow in comparison to the reference evaluation are graphically displayed. This type of display is based on the traffic light system and shows the accuracy of the evaluation per characteristic in comparison to the reference with color coding. Green fields indicate that the participant is very close to the reference evaluation. Yellow fields indicate that the assessment is still within the appropriate deviation corridor. Red fields visually indicate a deviation from the reference score that is too far (see graphs 3 and 7).

For detailed information on the practical application of FleckSchool, the chief evaluators from Bavaria (Hubert Anzenberger - hubert.anzenberger@lfl.bayern.de) and Austria (Gerald Pollak - gerald.pollak@noegen.at) are at your disposal.

Mulitply useable

With its conception as an online application as well as its display optimized for mobile devices and its extensive evaluation possibilities, FleckSchool is a valuable development for the dissemination of the exterior evaluation system FleckScore for school, teaching and further education. FleckSchool provides reliable evaluations at the push of a button, both for small groups in school or young breeder training as well as for larger-scale evaluation training and international competitions such as the FleckScore World Cup or the German Open.

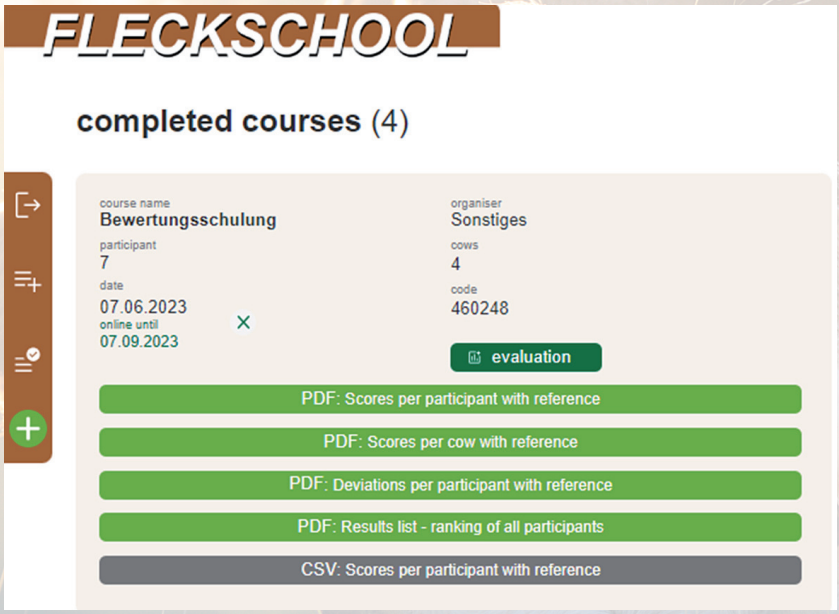
Successful cooperation

FleckSchool was developed by the project team consisting of Bernhard Luntz, Hubert Anzenberger, Reinhard Pfleger and Gerald Pollak and financed by ASR and Fleckvieh Austria. FleckSchool can thus be described as another example of the successfully functioning cooperation between Fleckvieh Austria, ASR and LfL.

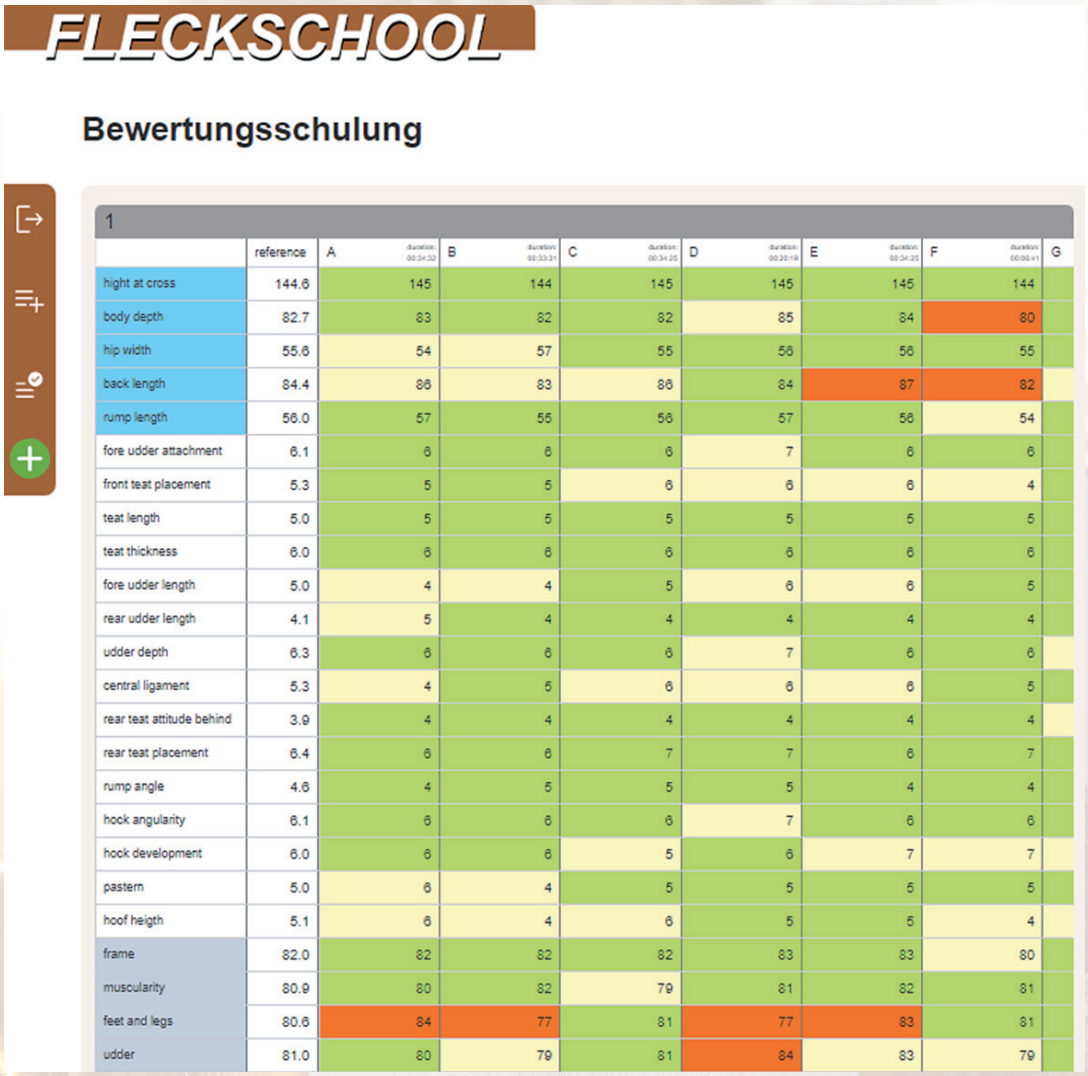
Ing. Sebastian Auernig - Präsident der Welt- und Europavereinigung der Fleckviehzüchter
Dr. Johann Ertl - Arbeitsgemeinschaft Süddeutscher Rinderzucht- und Besamungsorganisationen
Ing. Reinhard Pfleger - Fleckvieh Austria
Bernhard Luntz - Bayrische Landesanstalt für Landwirtschaft

Graphic 1: FleckSchool initial screen

Graphic 2: Overview of evaluations for course instructors



Graphic 3: Graphical evaluation for course instructors



FLECKSCHOOL

Bewertungsschulung

1

	reference	A	B	C	D	E	F	G
hight at cross	144.6	145	144	145	145	145	144	
body depth	82.7	83	82	82	85	84	80	
hip width	55.6	54	57	55	56	56	55	
back length	84.4	86	83	86	84	87	82	
rump length	56.0	57	55	56	57	56	54	
fore udder attachment	6.1	6	6	6	7	6	6	
front teat placement	5.3	5	5	6	6	6	4	
teat length	5.0	5	5	5	5	5	5	
teat thickness	6.0	6	6	6	6	6	6	
fore udder length	5.0	4	4	5	6	6	5	
rear udder length	4.1	5	4	4	4	4	4	
udder depth	6.3	6	6	6	7	6	6	
central ligament	5.3	4	5	6	6	6	5	
rear teat attitude behind	3.9	4	4	4	4	4	4	
rear teat placement	6.4	6	6	7	7	6	7	
rump angle	4.6	4	5	5	5	4	4	
hock angularity	6.1	6	6	6	7	6	6	
hock development	6.0	6	6	5	6	7	7	
pastern	5.0	6	4	5	5	5	5	
hoof heigth	5.1	6	4	6	5	5	4	
frame	82.0	82	82	82	83	83	80	
muscularity	80.9	80	82	79	81	82	81	
feet and legs	80.6	84	77	81	77	83	81	
udder	81.0	80	79	81	84	83	79	

Graphic 4: Evaluation for course instructors as PDF

Training course: Bewertungsschulung - Musterhausen / 2023-06-07

Scores per participant - comparison to reference

participant: A

	1		2		3		4	
	own	reference	own	reference	own	reference	own	reference
hight at cross	**145**	144.6	**150**	147.9	**146**	144.3	**146**	145.3
body depth	**83**	82.7	**82**	82.0	**84**	82.1	**80**	81.4
hip width	**54**	55.6	**54**	54.7	**53**	54.3	**56**	55.6
back length	**86**	84.4	**87**	86.3	**84**	83.4	**87**	86.0
rump length	**57**	56.0	**55**	55.1	**55**	54.4	**55**	55.9
fore udder attachment	**6**	6.1	**5**	4.4	**7**	6.9	**6**	6.3
front teat placement	**5**	5.3	**3**	3.0	**7**	6.7	**5**	5.0
teat length	**5**	5.0	**6**	6.1	**4**	4.3	**6**	5.4
teat thickness	**6**	6.0	**7**	7.3	**4**	4.0	**6**	5.3
fore udder length	**4**	5.0	**6**	5.9	**5**	5.9	**7**	7.0
rear udder length	**5**	4.1	**5**	5.6	**6**	6.9	**5**	4.7
udder depth	**6**	6.3	**6**	5.9	**7**	6.6	**6**	5.9
central ligament	**4**	5.3	**2**	2.9	**4**	4.6	**4**	4.9
rear teat attitude behind	**4**	3.9	**4**	3.9	**6**	6.3	**4**	4.0
rear teat placement	**6**	6.4	**3**	3.4	**7**	7.3	**6**	5.9
rump angle	**4**	4.6	**5**	5.3	**4**	5.1	**5**	5.1
hock angularity	**6**	6.1	**5**	5.3	**4**	4.3	**5**	4.9
hock development	**6**	6.0	**6**	5.6	**6**	5.9	**4**	5.3
pastern	**6**	5.0	**7**	6.4	**6**	6.1	**6**	6.3
hoof heigth	**6**	5.1	**4**	5.0	**5**	5.3	**4**	4.0
frame	**82**	82.0	**85**	83.9	**82**	80.9	**82**	82.3
muscularity	**80**	80.9	**82**	80.9	**81**	79.7	**81**	81.0
feet and legs	**84**	80.6	**84**	83.6	**83**	84.1	**79**	80.7
udder	**80**	81.0	**75**	74.9	**85**	85.6	**81**	82.6

Graphic 5: Evaluation for course instructors as PDF - result list

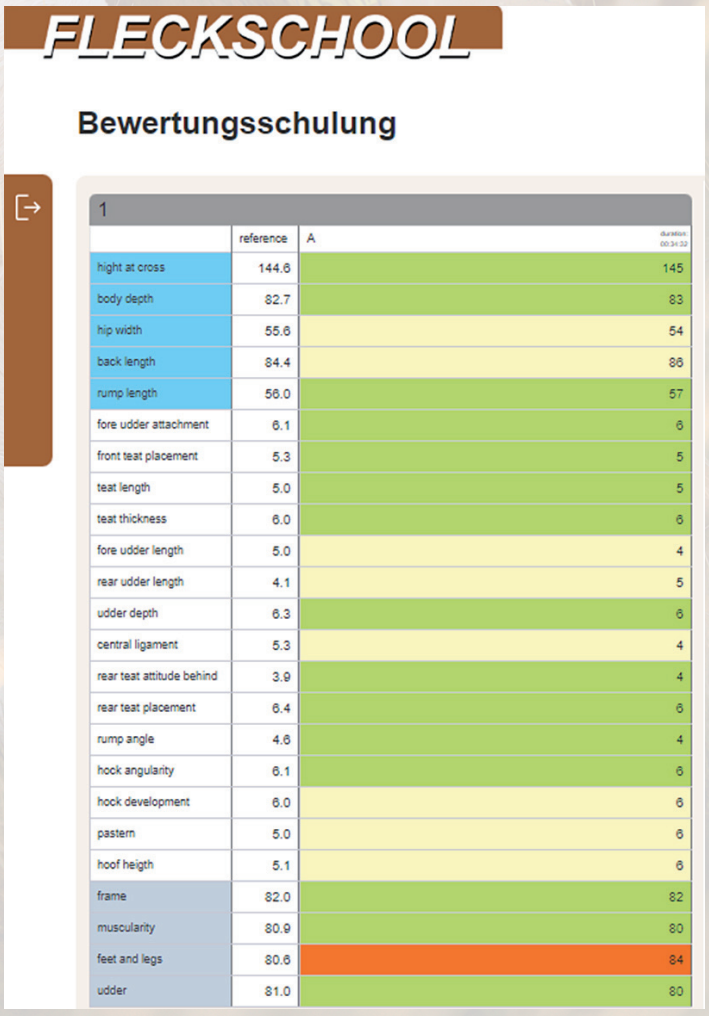
Training course: Bewertungsschulung - Musterhausen / 2023-06-07

Results list - ranking over all participants

	B *	E *	A *	C *	G *	D *	F *
hight at cross	2.0	2.7	5.0	2.6	6.0	5.6	1.3
body depth	2.4	4.0	3.6	2.4	4.9	5.7	6.4
hip width	2.6	2.0	4.0	2.1	1.6	1.4	4.0
back length	3.1	5.4	3.9	4.8	3.1	3.3	4.6
rump length	4.4	0.7	2.6	2.9	1.7	4.6	4.6
fore udder attachment	2.1	1.1	1.1	2.3	2.0	1.7	1.0
front teat placement	1.0	1.0	0.6	1.0	0.6	2.0	3.0
teat length	1.0	0.9	1.0	0.9	1.3	2.1	0.9
teat thickness	0.6	0.6	1.0	0.6	1.4	0.6	1.0
fore udder length	1.3	3.0	2.0	0.3	2.0	2.3	2.3
rear udder length	1.0	1.0	2.6	1.4	2.9	2.0	2.6
udder depth	1.1	1.9	1.0	1.0	2.4	1.4	2.6
central ligament	1.1	1.6	3.6	1.6	2.0	2.4	1.7
rear teat attitude behind	1.3	1.0	0.6	0.6	1.7	0.6	0.6
rear teat placement	1.4	1.3	1.3	1.6	1.3	2.0	2.6
rump angle	2.4	2.1	2.1	1.7	2.4	2.0	4.0
hock angularity	1.3	1.7	0.9	2.6	2.0	1.6	2.3
hock development	1.3	2.3	1.9	2.7	3.0	3.1	2.9
pastern	3.0	1.0	2.0	2.0	1.4	1.3	1.9
hoof heigth	1.4	0.8	2.1	3.1	1.6	2.4	2.4
frame	2.0	3.7	2.6	1.6	4.0	4.7	4.0
muscularity	3.7	3.3	3.3	4.3	2.0	2.7	5.0
feet and legs	5.6	8.2	6.7	10.3	7.4	11.0	7.4
udder	4.1	4.0	3.3	2.1	3.0	6.0	8.0
deviation measurment	**2.5**	**2.9**	**4.3**	**2.7**	**4.5**	**4.6**	**3.1**
deviation single traits	**21.4**	**21.3**	**23.7**	**23.3**	**28.0**	**27.6**	**31.6**
deviation main traits	**15.4**	**19.1**	**15.9**	**18.3**	**16.4**	**24.4**	**24.4**
deviation total	**39.3**	**43.3**	**43.9**	**44.3**	**48.9**	**56.6**	**59.1**

Graphic 6: Overview of evaluations for participants

Graphic 7: Graphical evaluation for participants



Graphic 8: Evaluation for participants as PDF

Training course: Bewertungsschulung - Musterhausen / 2023-06-07

My scores - comparison to reference

participant: A

	1		2		3		4	
	own	reference	own	reference	own	reference	own	reference
hight at cross	**145**	144.6	**150**	147.9	**146**	144.3	**146**	145.3
body depth	**83**	82.7	**82**	82.0	**84**	82.1	**80**	81.4
hip width	**54**	55.6	**54**	54.7	**53**	54.3	**56**	55.6
back length	**86**	84.4	**87**	86.3	**84**	83.4	**87**	86.0
rump length	**57**	56.0	**55**	55.1	**55**	54.4	**55**	55.9
fore udder attachment	**6**	6.1	**5**	4.4	**7**	6.9	**6**	6.3
front teat placement	**5**	5.3	**3**	3.0	**7**	6.7	**5**	5.0
teat length	**5**	5.0	**6**	6.1	**4**	4.3	**6**	5.4
teat thickness	**6**	6.0	**7**	7.3	**4**	4.0	**6**	5.3
fore udder length	**4**	5.0	**6**	5.9	**5**	5.9	**7**	7.0
rear udder length	**5**	4.1	**5**	5.6	**6**	6.9	**5**	4.7
udder depth	**6**	6.3	**6**	5.9	**7**	6.6	**6**	5.9
central ligament	**4**	5.3	**2**	2.9	**4**	4.6	**4**	4.9
rear teat attitude behind	**4**	3.9	**4**	3.9	**6**	6.3	**4**	4.0
rear teat placement	**6**	6.4	**3**	3.4	**7**	7.3	**6**	5.9
rump angle	**4**	4.6	**5**	5.3	**4**	5.1	**5**	5.1
hock angularity	**6**	6.1	**5**	5.3	**4**	4.3	**5**	4.9
hock development	**6**	6.0	**6**	5.6	**6**	5.9	**4**	5.3
pastern	**6**	5.0	**7**	6.4	**6**	6.1	**6**	6.3
hoof heigth	**6**	5.1	**4**	5.0	**5**	5.3	**4**	4.0
frame	**82**	82.0	**85**	83.9	**82**	80.9	**82**	82.3
muscularity	**80**	80.9	**82**	80.9	**81**	79.7	**81**	81.0
feet and legs	**84**	80.6	**84**	83.6	**83**	84.1	**79**	80.7
udder	**80**	81.0	**75**	74.9	**85**	85.6	**81**	82.6

Graphic 9: Evaluation for participants as PDF - result list

Training course: Bewertungsschulung - Musterhausen / 2023-06-07

Results list - ranking over all participants

	******	******	A	******	******	******	******
hight at cross	2.0	2.7	5.0	2.6	6.0	5.6	1.3
body depth	2.4	4.0	3.6	2.4	4.9	5.7	6.4
hip width	2.6	2.0	4.0	2.1	1.6	1.4	4.0
back length	3.1	5.4	3.9	4.8	3.1	3.3	4.6
rump length	4.4	0.7	2.6	2.9	1.7	4.6	4.6
fore udder attachment	2.1	1.1	1.1	2.3	2.0	1.7	1.0
front teat placement	1.0	1.0	0.6	1.0	0.6	2.0	3.0
teat length	1.0	0.9	1.0	0.9	1.3	2.1	0.9
teat thickness	0.6	0.6	1.0	0.6	1.4	0.6	1.0
fore udder length	1.3	3.0	2.0	0.3	2.0	2.3	2.3
rear udder length	1.0	1.0	2.6	1.4	2.9	2.0	2.6
udder depth	1.1	1.9	1.0	1.0	2.4	1.4	2.6
central ligament	1.1	1.6	3.6	1.6	2.0	2.4	1.7
rear teat attitude behind	1.3	1.0	0.6	0.6	1.7	0.6	0.6
rear teat placement	1.4	1.3	1.3	1.6	1.3	2.0	2.6
rump angle	2.4	2.1	2.1	1.7	2.4	2.0	4.0
hock angularity	1.3	1.7	0.9	2.6	2.0	1.6	2.3
hock development	1.3	2.3	1.9	2.7	3.0	3.1	2.9
pastern	3.0	1.0	2.0	2.0	1.4	1.3	1.9
hoof heigth	1.4	0.8	2.1	3.1	1.6	2.4	2.4
frame	2.0	3.7	2.6	1.6	4.0	4.7	4.0
muscularity	3.7	3.3	3.3	4.3	2.0	2.7	5.0
feet and legs	5.6	8.2	6.7	10.3	7.4	11.0	7.4
udder	4.1	4.0	3.3	2.1	3.0	6.0	8.0
deviation measurment	**2.5**	**2.9**	**4.3**	**2.7**	**4.5**	**4.6**	**3.1**
deviation single traits	**21.4**	**21.3**	**23.7**	**23.3**	**28.0**	**27.6**	**31.6**
deviation main traits	**15.4**	**19.1**	**15.9**	**18.3**	**16.4**	**24.4**	**24.4**
deviation total	**39.3**	**43.3**	**43.9**	**44.3**	**48.9**	**56.6**	**59.1**

Welcome to the 8th German Fleckvieh Show on 23rd and 24th September, 2023 in the Oberlandhalle / Miesbach

Fritz Pilsl, Dr. Johann Ertl, ASR

The German Fleckvieh breeders and their breeding and insemination organizations are looking forward to the 8th German Fleckvieh Show. The presentation of top animals of the German Fleckvieh breed is eagerly awaited by the national and international audience, since the last national show in October 2014 has taken place already nine years ago.

The internal and external effect of a national breed show on experts from home and abroad, interested consumers and media representatives is great. It is a welcome opportunity for breeders to compete with all national colleagues and to review their breeding work of the past years. The organizers, the associations and last but not least the exhibiting breeders with their cows will do everything to present the current Fleckvieh generation in the best possible way.

A main concern of all German Fleckvieh shows was and will also this time be a breeder´s position and a guide for further orientation. The discussion about the breeding strategy of the most important dual-purpose breed should be lively, especially as the breeding goal will be going reviewed and readjusted in the coming years. The pictures of the German Fleckvieh Shows from 1976 to 2014 demonstrate impressively the progress achieved from generation to generation. A breed show is also a hub and advertising platform for sales markets. It is further important to open up third-country markets for Fleckvieh genetics and new interested parties and buyers. Such breed shows not only enhance the image of the breed and origin, but also promote the building of trust between marked partners. Our member organizations and sponsors will provide all kinds of information about Fleckvieh cattle and their products with stands on the upper floor of the Oberlandhalle.

The Oberlandhalle of the breeding organisation in Miesbach offers the right setting for this major event.

A total of around 200 top German Fleckvieh cattle will compete in Miesbach for laurels and first prizes. The attraction will be the judging of the 117 cows on Sunday. The program starts on Saturday, 23rd September at 1:00 p.m. with the FleckScore German Open. “FleckScore” is a globally standardized evaluation system for Fleckvieh cattle. Many countries in Europe and overseas are already working with it, so a corresponding number of nations are expected to start in Miesbach. At a Young Breeders´Cup, Baden-Württemberg, Bavarian and Hessian young breeders compete in individual demonstrations. In this type of competition, criteria such as the harmony between animal and handler or the skill of the handler in presenting the cattle serve as important benchmarks.

Afterwards, at 7:00 p.m. the presentation of progeny of current sires from various insemination stations will take place. The coming breeding value estimation will determine of which bull daughters are going to be presented. The final selection will be done shortly.

From 8:30 p.m. an elite auction will take place, in which up to ten highly genotyped female animals and young bulls with the best pedigree will be auctioned off to the highest bidder. The program ends with the finale of the young breeders´ competition at 9:15 p.m.

The main competition will take place on Sunday, 24th September at 9:00 a.m. The top cows of the Fleckvieh breed will be judged and commented in several classes by the Austrian Reinhard Scherzer. In between there will be award ceremonies and entertainment elements. The young breeders will have another opportunity to present themselves to the large audience.

Many thanks in advance to all those who support, help or attend this 8th German Fleckvieh Show. We from ASR are looking forward to and hope to see you in large numbers in Miesbach for this main breeding event of the German Fleckvieh breeding in 2023.

Assistance and accommodation

Farm visits along the travel route can be organized for groups on request. For room reservations pleas contact

www.miesbach-tourismus.de

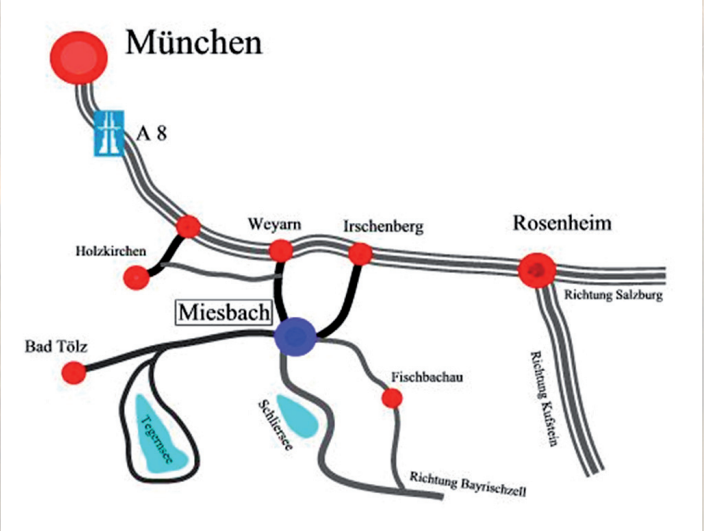
Program

Saturday, 23rd September, 2023

1:00 p.m.	FleckScore German Open
3:00 p.m.	International Reception
4:00 p.m.	Young Breeders´Cup, individual competition
6:30 p.m.	Finale FleckScore German Open
7:00 p.m.	Progeny presentation
8:30 p.m.	Elite auction
9.15 p.m.	Finale Young Breeders´Cup
10:00 p.m.	Get-together in the gastronomy.
	Young Breeders´ party

Sunday, 24th September, 2023

9:00 a.m. – 3:00 p.m.	Judging competition / Judge Reinhard Scherzer
in between	Greetings
	Presentation Young Breeders
	Presentation of progenies
	Award ceremony
3:00 p.m.	Tombola of young breeders.



Willkommen zur 8. Deutschen Fleckviehschau am 23. und 24. September 2023 in der Oberlandhalle / Miesbach

Fritz Pilsl, Dr. Johann Ertl, ASR

Die deutschen Fleckviehzüchter und ihre Zucht- und Besamungsorganisationen fiebern der 8. Deutschen Fleckviehschau entgegen. Die Präsentation der Spitzentiere der deutschen Fleckviehzucht wird vom nationalen und internationalen Publikum mit Spannung erwartet, nachdem die letzte Bundesschau im Oktober 2014 bereits 9 Jahre zurückliegt.

Die Innen- und Außenwirkung einer nationalen Rasseschau auf Fachkundige aus dem In- und Ausland, interessierte Verbraucher und Medienvertreter ist groß. Für die Züchter ist es eine willkommene Möglichkeit, sich mit der gesamten nationalen Konkurrenz zu messen und ihre Zuchtarbeit vergangener Jahre zu überprüfen. Die Organisatoren, die Verbände und nicht zuletzt die ausstellenden Züchter mit ihren Kühen werden wieder alles tun, die aktuelle Fleckviehgeneration bestens zu präsentieren.

Ein Hauptanliegen aller Deutschen Fleckviehschauen war und wird auch jetzt eine züchterische Standortbestimmung und eine Orientierungshilfe für die weitere Ausrichtung sein. Die Diskussion über die Zuchtstrategie der bedeutendsten Zweinutzungsrasse dürfte lebhaft geführt werden zumal in den kommenden Jahren eine Überprüfung und Neujustierung des Zuchtzieles ansteht. Die Bilder der Bundesschauen von 1976 bis 2014 zeigen eindrucksvoll, welche Fortschritte von Generation zu Generation erzielt wurden. Eine Rasseschau ist auch Drehscheibe und Werbebühne für Absatzmärkte. Weiterhin gilt es, Drittlandsmärkte für Fleckviehgenetik aufzutun und neue Interessenten und Abnehmer zu gewinnen. Solche Rasseschauen heben nicht nur das Image von Rasse und Herkunft, sondern fördern auch die Vertrauensbildung zwischen Marktpartnern. Unsere Mitgliedsorganisationen und Sponsoren werden mit Messeständen im Obergeschoss der Oberlandhalle für jegliche Informationen rund ums Fleckvieh bzw. um ihre Produkte sorgen.

Die Oberlandhalle des Zuchtverbandes Miesbach bietet den passenden Rahmen für diese Großveranstaltung.

Insgesamt rund 200 Spitzentiere der deutschen Fleckviehzucht werden in Miesbach um Siegerlorbeeren und erste Preise konkurrieren. Besuchermagnet wird das Preisrichten der 117 Top-Kühe am Sonntag sein. Das Programm beginnt am Samstag, 23. September 2023 ab 13.00 Uhr mit dem FleckScore German Open. „FleckScore“ ist ein weltweit standardisiertes Bewertungssystem für Fleckvieh. Viele Länder in Europa und Übersee arbeiten bereits damit. Entsprechend viele Nationen werden daher auch in Miesbach am Start erwartet. Bei einem Jungzüchtercup messen sich baden-württembergische, bayerische und hessische Jungzüchter unter den Augen von Preisrichter Hannes Pfister im Einzelvorführen. Bei dieser Art von Wettbewerb dienen Kriterien wie die Harmonie zwischen Tier und Vorführer oder auch das Geschick des Vorführers bei der Präsentation des Rindes als wichtige Maßstäbe. Aber auch die Tiere der Jungzüchter werden ein einen Typwettbewerb von Hannes Neuner gerichtet.

Im Anschluss findet um 19.00 Uhr die Präsentation von Nachzuchten von aktuellen Vererbern verschiedener Besamungsstationen statt. Von welchen Bullen Töchter gezeigt werden, wird die kommende Zuchtwertschätzung zeigen.

Ab 20.30 Uhr findet eine Eliteauktion statt, bei der bis zu zehn hoch genotypisierte weibliche Tiere und Jungbullen mit bestem Pedigree an den Meistbietenden versteigert werden. Seinen Abschluss findet das Programm ab 21.15 Uhr mit dem Finale des Jungzüchterwettbewerbs.

Am Sonntag, 24. März, steigt ab 9.00 Uhr der Hauptwettbewerb. Die Top-Kühe der Rasse Fleckvieh werden vom Österreicher Reinhard Scherzer in mehreren Klassen gerichtet und kommentiert. Zwischendurch erfolgen Grußworte, Siegerehrungen und Unterhaltungselemente. Auch die Jungzüchter erhalten nochmals die Gelegenheit sich dem großen Publikum zu präsentieren.

Im Voraus bereits ein herzlicher Dank an alle, die diese 8. Deutsche Fleckviehschau unterstützen, mitgestalten oder besuchen. Wir von der ASR freuen uns und hoffen, Sie zahlreich in Miesbach zum züchterischen Hauptereignis der deutschen Fleckviehzucht im Jahr 2023 begrüßen zu dürfen.

Betreuung und Unterkunft

Für Gästegruppen können auf Wunsch Betriebsbesichtigungen entlang der Fahrtroute organisiert werden. Für Zimmer-reservierungen wenden Sie sich bitte an www.miesbach-tourismus.de

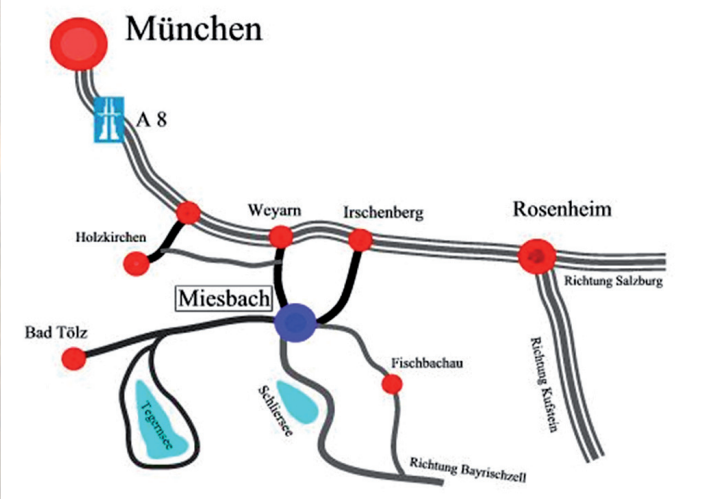
Programm

Samstag, 23. September 2023

13.00 Uhr	FleckScore German Open
15.00 Uhr	Internationaler Empfang
16.00 Uhr	Jungzüchtercup, Einzelwettbewerb
18.30 Uhr	Finale FleckScore German Open
19.00 Uhr	Präsentation der Nachzuchten
20.30 Uhr	Eliteauktion
21.15 Uhr	Finale Jungzüchterwettbewerb
22.00 Uhr	Gemütliches Beisammensein in der Gastronomie Jungzüchterparty

Sonntag, 24. September 2023

09.00 – 15.00 Uhr	Richtwettbewerb / Preisrichter Reinhard Scherzer
dazwischen	Grußworte Präsentation Jungzüchter Präsentation der Nachzuchten Siegerehrung
15.00 Uhr	Verlosung Jungzüchter



FleckScore German Open

As part of the program of the German Fleckvieh Show, the FleckScore German Open competition will be held on 23rd September, 2023. 60 participants from eight countries will compete in the classification of cows using the FleckScore system.

We want to use the German Fleckvieh Show to advertise the FleckScore system with this competition and to promote the international exchange of young breeders.

The program of the German Fleckvieh Show starts with the FleckScore German Open on 23rd September, 2023 at 1:00 p.m. The finale, in which the three best participants compete for the final round, is integrated into the evening program and scheduled for 6:30 p.m.

We are looking forward to welcoming the numerous participants and having an exciting FleckScore competition!

FleckScore German Open

Im Rahmen des Programms der Deutschen Fleckviehschau wird am 23. September 2023 der Wettbewerb FleckScore German Open durchgeführt. 60 Teilnehmer aus acht Ländern werden sich in der Einstufung von Kühen mit dem FleckScore-System messen.

Wir wollen die Deutsche Fleckviehschau nutzen, um mit diesem Wettbewerb das FleckScore System zu bewerben und den internationalen Austausch der Züchterjugend zu fördern. Als Niveaugeber werden Chefbewerter aus Österreich und Deutschland fungieren.

Mit dem FleckScore German Open beginnt das Programm der Deutschen Fleckviehschau am 23.September 2023 um 13:00 Uhr. Das Finale, in dem die besten drei Teilnehmer zur Endausscheidung antreten, ist in das Abendprogramm integriert und um 18:30 Uhr geplant.

Wir freuen uns auf die zahlreichen Teilnehmer und einen spannenden FleckScore-Wettbewerb in Miesbach!

Agroexpo 2023 in Colombia

Daniel Espinosa, Asosimmental - Simbrah de Colombia
The president of the National Union of Livestock Associations, UNAGA

Agroexpo 2023 marks the 48th anniversary of the most important Colombian livestock fair and one of the most important in Latin America. It is done every two years and about 3,000 animals attend for 11 days divided into three blocks of participation, under the umbrella of the National Union of Livestock Associations UNAGA, in association with Corferias.

International visitors, especially from our neighboring countries, can enjoy a commercial sample that goes from small hairdressing machines or the new generations of seeds, to tractors, combines, harvesters and all kinds of heavy machinery for the field.

The most important embryo laboratories are also present, since in Colombia no one practices embryo transfer using follicle-stimulating hormones, which affect the hormonal composition of cows and in many cases lead to the loss of these because they do not become pregnant due to these hormonal disorders. In vitro fertilization is now being worked on intensively and this is one of the most important aspects that is helping farmers to develop genetics, since using biotechnology, cows can be aspirated up to 100 days pregnant, collecting oocytes that are later transformed

Great champion reserve (Magier's daughter)

Great Champion Simmetal Agroexpo 2023

Young and Adult Supreme Champion

into embryos in the laboratory, thus only the best and most efficient animals are reproduced, which guarantees the farmer to take bigger steps in the right direction.

But who leads and makes all the commercial participation possible these days, are the animals where you can see 3 dual-purpose breeds, which of course include the Simmental, 4 breeds specialized in milk, 18 meat associations, including the native breeds of Colombia, in addition to several equine breeds, plus sheep and goats.

The Simmental is the second breed in number after the zebu, with a participation of 170 animals and the most important breeders from all regions of the country come regardless of the distance they have to travel. In the Corferias enclosure, the best of Colombian cattle genetics in all breeds come together and there is no more important prize for a cattle breeder than being able to obtain a first place ribbon, and even more, a championship or a great championship in this magnificent and great event.

In the first weekend, the attendance records for the fair of the last 10 years were broken, and in the first two cattle auctions close to €450,000 were sold, with which the importance of this cattle show can be measured.

For this occasion we will have the participation of many children and young people who go out on the track showing animals regardless of whether they own them or not, to encourage love for our breed and for the countryside in general.

Best udder (Mint's daughter)

Judge Hernando Guerra, a Mexican national, was invited to judge our breeds in the case of Simbrah. He was the founder of the school of judges and technicians, and also helped to form the racial pattern of Simmental and Simbrah in his country.

In the Simmental case, our German friend Helmut Gossner, director of the Greifenberg plant, who has judged in Austria, Belgium and also in his country, was invited.

Agroexpo 2023 has ended and it has been a resounding success that has shown us the best of Colombian genetics. In the case of dual purpose breeds, a Simmental heifer was chosen as the young supreme champion and a Norman cow as the adult supreme champion. The Holstein was chosen for the young supreme champion of the specialized dairy breeds, and in the cows, the winner was the Jersey breed.

Young champion cow

The Dual PurposeSustainable selection Index in the Italian Simmental Population

Lorenzo Degano, Daniele Vicario, Andrea Zamburlini

ANAPRI has recently modified its Total Merit Index by introducing the IDAS (Dual Purpose Sustainable Index) since last update of previous index IDA in 2007. The reasons of this change were:

- Current production/economic/social scenario strongly changed.
- Withdrawal of the EU milk quota system referring to the quantity of fat in milk.
- Increased interest for Topics as environmental impact, sustainable production, animal health and welfare.
- Italian Pezzata Rossa breed is tending to spread out more in mountain areas.
- Availability of new breeding valuesfor fertility, longevity, feed efficiency.
- Modification of the genetic parameters of heritability genetic correlation among traits of interest.

The Italian Simmental

Italian Simmental (IS), Pezzata Rossa Italiana, is a dual-purpose cattle, that counts about 90.000 cows registered in the official Herdbook of the breed. The Italian Simmental Breeders Association (ANAPRI, Associazione Nazionale Allevatori) manage the Herdbook and the breeding program of the IS breed in Italy. In 2022, 64687 cows spread in 4.374 herd were milk recorded by the Italian Breeders Association (Bulletin AIA); this breed is mainly raised in small herds (15 cows), often located in mountainous areas (57% of farms) The average milk production in 2022 was 7,449 kg of milk with 3.93% and 3.42% as fat and protein percentages, respectively. A remarkable hardiness combined with high fertility and disease resistance are the other main qualities of this breed.

The breeding program

The breeding program for the Italian Simmental aims at simultaneously improving milk and meat production in both quantity and quality, especially because the milk is mainly used for the cheese production. Other breeding goals are resistance, fertility, longevity, milking speed, disease resistance, feet & legs and udder conformation.

Each year about 250 calves born from programmed matings among the best bull'sires and bull'dams of IS breed are introduced in the ANAPRI performance-test station (Fiume Veneto, PN, Italy) when they are about 30 days old. The calves are weaned at the age of about 3 months. In the ANAPRI performance-test station, when they are about 3-4 months old, the candidates are divided into homogeneous groups and raised together in the same facility, from weaning to the age of 12 months, when they would be ready for reproduction.

The performance test starts when calves are 5 months old and ends when they are 12 months old. During the whole trail, all the animals are weighted every six weeks. In the last two months of the performance test, the calves are raised in pens equipped with Roughage Intake Control system (RIC). The RIC feed-weight trough measures the amount of roughage intake with extreme precision and stores the data in a database every day.

There are several measures of feed efficiency, but Residual Feed Intake (RFI) is currently the most widely used, especially in the beef cattle sector. RFI is a linear index derived from the combination of feed consumption and production traits

Italian Simmental cows in Puglia.

RFI can be defined as the difference between the observed feed intake and the expected feed requirements for maintenance of body metabolic processes and production. Negative values of RFI identify more efficient animals, whereas positive values are related to animals that are not efficient because the feed intake is larger than the expected feed request. RFI is independent from body size and growth of livestock animals, and only slightly correlated with average daily gain. For these reasons RFI has already been included worldwide in some breeding programs in both pigs and cattle; the heritability of RFI estimated on the candidates in performance test was close to 30%.

At the end of the performance test period, each animal is scored for conformation traits and classified according to growth and muscular conformation. These traits are used to calculate the Beef Index t, that is considered in the definition of the Total Merit selection index.

Which is the cow of the future?

In order to understand the needs of Italian Breeders, at the beginning of the study for the new selection index, a survey has been produced. Farmers want to improve the production of milk, keeping the beef production, yields that must to be obtained in a very efficient way. Furthermore, they wish a stronger animal with a very long career, with less problems of fertility and mastitis. For Italian Simmental farmers the quality of the udder and feet & legs, are very important.

The second step has been to estimate the economic value of the different traits that are breeding goal, in order to define somehow a starting point definition of the selection index based only on economic aspects. Furthermore, thanks to this study, has been possible to express the new IDAS in Euro considering the more profit obtainable in the entire productive career of the cow.

Subsequently, genetic parameters of heritability genetic correlation between traits of interest have been updated, in order to give the possibility to estimate the selection response after 10 years of selection considering some different definitions of the breeding goals. All the considered definitions include new traits as RFI (feed efficiency) that's is related to the environmental impact, fertility and direct longevity.

Table 1, shows the comparison between the old selection index (IDA - Dual Purpose Selection Index) and the new one (IDAS - Dual Purpose Sustainable Index) in terms of composition and expected response to selection in 10 years. The same table reports the definition of the selection index, in terms of weight of the different traits, and the phenotypic response to selection in 10 years (this is derived from a simulation study).

Concerning milk production, a similar weight was given to Protein and Fat yields while the IDA in use before December 2022 showed a very clear predominance of Protein than Fat. What has changed over the years? The disappeared milk quota system in EU since 2015, that penalized in particular fat production, is a good reason to rebalance the ratio between these two traits. Moreover, the economic preliminary study showed that the economic value of the two traits is similar. With the new definition of the total merit index the gain of milk production for singular lactation is lower (+470 kg vs 577 kg), but if we consider the entire lifespan the difference is smaller, because by selecting on IDAS the cow longevity will be longer.

Concerning the functional conformation (udder and feet & legs), one of the distinctive elements of Italian selection, with IDAS the weight of the udder is reduced (from 14.5% to 10%). However, from the point of view of selection response after 10 years we obtain the same result despite the lower emphasis given to the conformation of the udder. We observed also for the others traits no significant difference in terms of phenotypic response.

Compared to the IDA, the main changes are the introduction of two new traits, Direct Longevity and female Fertility with a weight of 10% each. The introduction of these two traits will allow us a significant increase of the productive lifespan of the animals (+234 days i.e. 0.59 lactations) and an improvement of the reproductive performance with a reduction of the calving interval of 2.4 days on average. The increased cow productive lifespan allows a significant reduction in the replacement rate (-4.6%), with considerable benefits in terms of economic sustainability (reduction of replacement costs) as well as on environmental point of view, as there is a lower incidence of (non-productive) animals needed for the replacement of culled cows. Regarding fertility, the objective was to avoid the decrease of fertility performances on cowspopulation, that would have occurred by continuing to select animals with the IDA.

IOSC ANABEL mother of the bull CTM EDELWEISS (Breeders:Deval Martin; Marebbe (Bolzano)).

With IDAS there is also a greater emphasis on mastitis resistance (from 5% to 9%). This change also has a double meaning: first of all, economic because the milk cell count content affects the price of milk and mastitis represents a significant cost for breeders, and secondly, the other meaning is related to animal welfare and the reduction to the use of antibiotics. The response to this change is favorable thanks to bigger reduction of the linear score of the cell somatic count.

On the other hand, a reduction in the importance of milkability from 7.5% to 3% was observed; this reduction is explained by the fact that, there has been a significant improvement in milking speed during the last years. This reduction does not affect the response to the selection.

Regarding the beef traits (muscling of cows and data recorded on bull candidates at performance-test station) there are not very big difference in terms of response to the selection despite the composition of the 2 selection indexes is quite different.

Another element of absolute novelty is the weight (2%) given to the RFI trait, a measure of efficiency derived from the monitoring of feeding behavior carried out on breeding candidates reared in the Fiume Veneto performance-test station.

This is a trait that has a significant economic impact, favorably correlated with methane and nitrogen emissions into the environment. Selection for efficient individuals can lead to a reduction in emissions, as confirmed by scientific bibliography. The weight given is quite low so far, since this is a new trait, with which we must investigate further: adjustments in the near future will most likely see a greater emphasis on this trait.

Breeding on more feed-efficient bulls to become sires also results in more efficient daughters either during the juvenile growth phase as during the production phase, which benefits the breeder by obtaining a reduction in production costs. It must to be cleared any misunderstanding that economic sustainability, environmental sustainability and animal welfare are absolutely not antithetical aspects, indeed they are favorably linked.

Conclusions

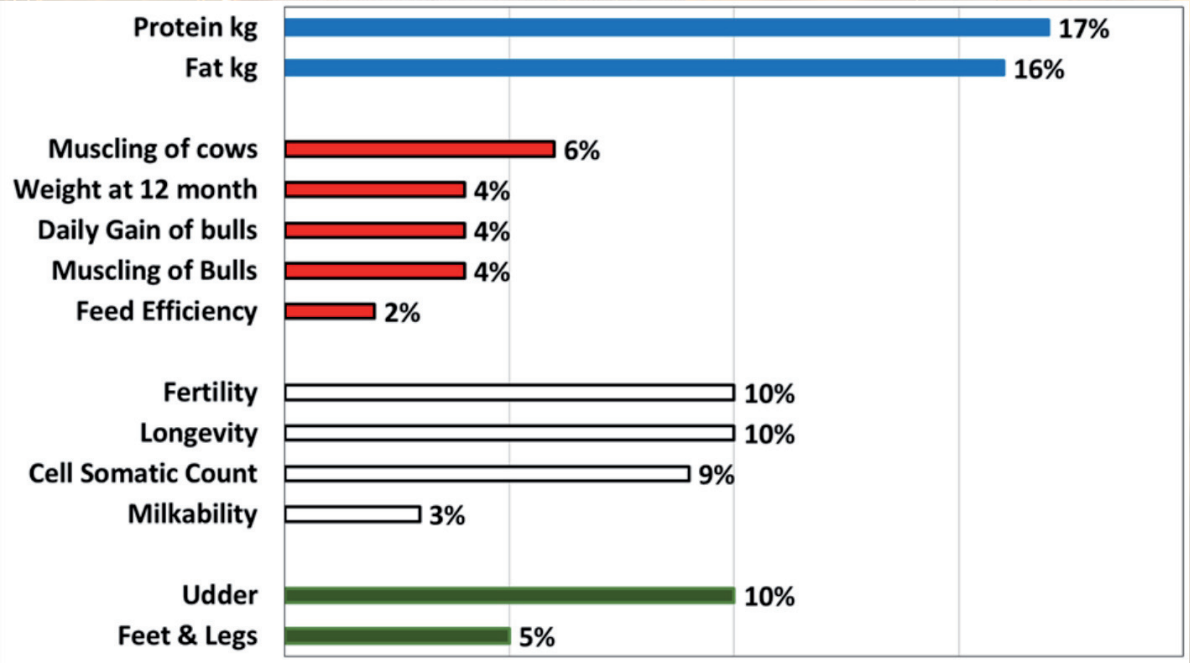
Figure 1 shows the composition of the new IDAS. In the final definition, the weight of milk traits was 33%, of the beef production 20%, functional conformation 15% and 32% for fitness. We think that the new total merit index can meet in the best way the requests of Italian Simmental farmers.

What is now left to do is to make still experience with the new index. The final choice made will necessarily have to be validated over time by verifying whether this indexing allows us to highlight breeding animals that are actually of interest to breeders.

Table 1. Comparison between the old selection index (IDA- Dual purpose selection index) and the new IDAS (Dual Purpose Sustainable Index) in terms of composition and expected response to selection in 10 years.

	Composition		RESPONSE TO SELECTION		
	IDA	IDAS	udm	IDA	IDAS
Milk Kg	0	0	Kg for lactation		
(kg in career)	577				
(2058)	470				
(1829)					
Fat Kg	2	16	Kg for lactation		
	23	21			
Protein Kg	37	17	Kg for lactation		
	22	16			
Fat %	0	0	%	0.04	0.05
Protein %	5	0	%	0.06	0.03
Size (cows)	0	0	Points (range 68-93)	0.3	0.3
Muscling(cows)	6	6	Points (range 68-93)	0.5	0.6
Feet&legs (cows)	5	5	Points (range 68-93)	0.6	0.6
Udder (cows)	14.5	10	Points (range 68-93)	2.0	2.1
SCS	5	9	LS	-0.193	-0.469
Milkability	7.5	3	Points (range 1-3)	0.2	0.1
Longevity	0	10	Days (nl)		
Var replacement quota.	106 (0.27)				
-2.3%	234 (0.59)				
-4.6%					
Fertility	0	10	Days open.	5.8	-2.4
Size PT	1.8	0	Points (range 68-93)	0.4	0.6
Muscling PT	7.2	4	Points (range 68-93)	1.6	1.3
Feet&legs PT	1.8	0	Points (range 68-93)	0.5	0.4
Daily gain PT	7.2	4	Kg/d	44.5	40.7
Weight at 12 months	0	4	Kg	14.2	14.3
Residual Feed Intake	0	2	Kg ss/d	0.000	-0.035

Figure 1: The selection index Indice Duplice Attitudine Sostenibile – IDAS (Dual Purpose Sustainable Selection Index).



Celebrating 70th anniversary in Ptuj

Daniel Skaza
Control and selection of animals
Agriculture and Forestry institute of Ptuj

On 9th of June Agriculture and Forestry institute of Ptuj celebrated 70 years of work with a regional show, where cows of the Simmental and Holstein breed from the whole Podravje region were presented. We were happy to welcome numerous visitors from Slovenia as well as much appreciated guests from abroad.

The history of our institute started in 1953, when veterinary clinic was established on the same location where Agriculture and Forestry institute of Ptuj still stands today. Due to widespread reproductive diseases in cattle, fertility problems had occurred in the Podravje region and also in the whole country. As in other parts of the world, artificial insemination has been introduced to improve health of cattle population. Another aim was, of course, obtaining genetic progress by using bulls with the best genetic background. In November 1958 an Artificial insemination center was established and new stall for bulls was built. With that, our institution took over the leading position in animal husbandry in the region.

In 1980, more than 31.000 cows were included in control of production in the region Podravje and part of the Koroška region. The selection work consisted of offspring evaluation for the presence of genetic defects, calving ease, growth capacity in offspring, quantity of milk, milking speed, selection of bull mothers and selection of young bulls for AI. In 1987, they started analyse milk for protein content.

Over the years, our institute has changed organization shapes and names as well. In 1995, new veterinary legislation came into power. The result of that was separation of the veterinary service from the agriculture service.

The judge of the Simmental show was Bernhard Luntz from LfL Institute in Grub (Germany).

Since then, our institute has been working in three main areas:

- Artificial insemination center with production and distribution of bull semen, the only AI center with semen production of the Simmental breed in Slovenia. Part of the AI center activity is the production of boar semen as well.
- Control of production and selection of animals with major emphasis on control of production in cattle. Additional tasks is selection in swine production and control of production in sheep and goat population.
- Advisory service for farmers is organized on two levels – general advisory service with general help for farmers including help in administrative tasks and special advisory service where experts provide special knowledge to farmers.

The mayor of Ptuj greeted our guests

The laboratory has been a separate department since 2014 and it includes analysis of the milk for purposes of control production with a capacity over 400.000 samples per year. Since 2015, laboratory has been accredited for fat, protein and lactose content, and from 2020 for the content of somatic cells and enumeration of bacteria as well. Beside milk analysis, soil, food and vine analysis are carried out in our laboratory. Currently, we are in the process of obtaining accreditation in the field of soil analysis for the parameters organic carbon on dry matter and total nitrogen on dry matter.

Since 2000, our institute has been part of Chamber of Agriculture and Forestry of Slovenia which is representative organization of Slovenian farmers and fights for their interests. A network of eight regional institutes has been established which offer farmers support and expert knowledge. The Agriculture and Forestry institute of Ptuj is one of them with a strong emphasis on animal production.

We were happy to have so many gusts at our event

Podravje is the region of great importance in field of agriculture in Slovenia. There is still a lot of room for improvement especially when we are talking about irrigation systems. The Drava River can provide enough water for irrigation the whole year round and this opportunity shouldn't be missed.

The best of Simental breed in the ring

In recent years, farmers with milk production as their main orientation have gone through a lot of changes. In the last 30 years, the number of cows per herd has grown more than three times on average. Together with the growing size of the herds, farmers have to provide housing for animals as well as enough land to obtain food for the growing herd. We can easily say that farms, which were oriented to milk production have experienced the biggest grow and progress in that period. The biggest problem of our farmers in present time is how to obtain enough land. They also expect more support from the agriculture politics for farmers that are involved in animal production.

In the Podravje region we have more than 30.000 cows located on nearly 2.900 farms, which represent around 20% of cows in Slovenia. Some 18.000 cows or more than 60% are included in control of production. Since 2004, control of production has been conducted with the AT4 method. The average size of the herd in our region is 28 cows. With more than 50% Simmental breed is the most numerous, followed by the Holstein with 40% of cows in control of production.

The Slovenian breeder's organization has been a part of EVF and WSFF since 1992 of which we are enormously proud The Simmental population in Slovenia has always been strongly connected to population in other European countries. The best genetic for planned mating have been imported from other populations with the goal to improve gene pool of our population. Most of the semen has been imported from Germany and Austria and occasionally from other European countries with strong population of dual-purpose Simmental population.

Our institute is strongly connected to Slovenian Simmental breeders'organization. Only a good cooperation between breeders and AI centre can guarantee progress of the Simmental breed. Since 2015, only bulls with estimation of genomic breeding value on joined DE/AT/CZ reference population are used in AI. With the genotyping of young bulls we have comparison of our bulls with bulls from other populations. Breeders have more trust in the new genetics and are more likely to use semen of young bulls. The result of using young genetics in herds more often is evident through better production results in our herds.

Milk production in standard lactation by years in Simmental bred in Podravje region:

Year	Kg milk	Fat content %	Protein content %
2022	6228	4,13	3,44
2020	6105	4,12	3,47
2018	6061	4,09	3,39
2016	5756	4,07	3,38
2014	5541	4,06	3,37

On regional show held on 9th of June 58 cows of Simmental and Holstein breeds were presented by 34 owners. Additionally sucler cow with a calf in type of beef Simmental was on show. Since there is large number of Simmental breed in sucler herds, breeders' organization and AI center both see good opportunity in beef production with Simmental breed. There was also a presentations of goat and sheep breeds typical for Slovenia.

The cows arrived to location of the show one evening before the event. Cows of each breed were presented in three groups – first lactating cows, young cows in 2nd lactation and older cows in 3rd lactation and more. In the Simmental breed the judge of the competition was Bernhard Luntz from LfL Institute in Grub and the judge for Holstein breed was Tamás Sebök from Holstein Hungary organization. Both judges did an excellent work and we are grateful for that.

We prepare cattle show together with the organization of young farmers from Podravje region and breeders every 5 years. Beside the cattle show, which was the main event of the day, there were many other activities going on. We wanted to present all variety of activities our institute covers in the region from local culinary presentation, market of farm products, new agriculture politics in next four years, presentation of laboratories, presentation of projects our institute is taking part in etc.

Our institute have long and rich history of common work with farmers in our region. There are still many challenges ahead of us and we will overcome them with good teamwork. We are looking forward to be your host in five years. We expect events like ours will bring a positive attitude and awareness to importance of agriculture to wider public.

Judging of Simental first lactating cows

The National Fleckvieh Show in Brno

Blanka Dřízhalová, Czech Moravian Breeders Corporation, Inc.

The judge of the show was Jože Smolinger from KGZ-Ptuj, Slovenia (second from left) with his colleague Igor Stanonik (next to him)

The exhibition was special in its date and venue this year. The National Fleckvieh shows are usually held in autumn either in Radešínská Svratka or in Opařany. For the first time, the Association of Breeders of the Czech Fleckvieh Cattle decided for uniquely generous and representative premises at the Brno Exhibition Centre. Brno is the second largest city in the Czech Republic and its exhibition centre offers generous facilities and services for breeders.

The National Czech Cattle Show was held as part of the inter-national trade fair for livestock production called AnimalTech, which is held every two years in Brno, this time from 22 to 26 April 2023.

236 exhibitors from 8 countries presented themselves at the exhibition centre. A record number of almost 50 000 people passed through the gates of the exhibition centre. Visitors could see over 1000 livestock, mainly beef and dairy cattle, participating in national championships, competitions and breeding shows. The shows were held in 4 large capacity halls and outdoor areas were also used. In addition to the national championships of beef and dairy cattle breeds, there were also competitions and horse shows, especially western races such as the Mountain Trail. There were also veterinary conferences and breeding heifer auctions, for example. A range of feed-related products, agricultural, transport and handling equipment was on display. New trends in livestock production, welfare and digitalisation were of particular interest.

The fact that this is a top breeding event was marked by the visit of the Minister of Agriculture and other top officials.

The whole exhibition is generally considered to be a very high professional standard, but at the same time it is very attractive to the public and draws their interest widely, which is very important at this time for spreading awareness of agriculture.

Junior competition

Very attractive was also the competition of children and juniors which took place 2 days before the National Fleckvieh show. The competition was very interesting for spectators and always attracts a wide public. After all, what could be more beautiful than the sight of skilful children with calves?

Younger Champion from Nahořanská a.s. CZ379899952 on 1st lactation.

64 children and juniors took part in the competition, which is the highest number of participants since the beginning of this type of competition. The young breeders were divided into categories according to their age. During competition were presented different dairy breeds. An Italian judge, Massimo Capra, was invited to judge and focused on the quality of preparation and presentation of the heifers in the ring.

The Czech Republic is still improving in this respect. Every year we organize summer camps for young breeders and enthusiast, which are very popular. Thanks to this, the presentation of animals at shows is still at a high level.

The National Show of Czech Fleckvieh cows

The National Fleckvieh Show 2023 in Brno was a wonderful event for breeders, which was confirmed by the high interest of visitors. The whole Fleckvieh show was also broadcasted on-line.

The youngest participant of Junior show

Reinhard Pfleger (Fleckvieh Austria) handed over a memorial bronze plaque to the Chairman Marian Bílý next is the Managing Director Pavel Král from the Czech Moravian Breeders Corporatio

Cow with the best udder CZ 812838961 from Radešínská Svratka

A total of 59 Czech Fleckvieh cattle from 21 breeders were presented. The show was judged by Jože Smolinger, the Slovenian judge, and his colleague. They did an excellent job and we were grateful for that.

We were delighted to welcome a record number of visitors from Czech and highly valued guests from abroad. For example, Natasa Unuk and Janko Golob from Slovenia, Ivan Pavlik and Matus Kohut from Slovakia or Mateusz Zbiciak and Damian Cholewa from Poland. A special guest was Reinhard Pfleger from Fleckvieh Austria, who handed over a memorial bronze plaque on behalf of Austria Fleckvieh to the Chairman Marian Bílý and the Managing Director Pavel Král from the Association of Breeders of the Czech Fleckvieh Cattle. Reinhard Pfleger thanked his Czech colleagues for the great cooperation and emphasised the Fleckvieh cows exhibited in respect of performance and exterior quality.

The presented cows were excellently prepared and perfectly exhibited, it was a graceful show that received many positive responses. The Czech Fleckvieh have excellent exterior results according to international exterior comparisons and at the same time have the highest milk production per standard lactation in Europe according to the ICAR ranking.

Senior Champion from the school farm in Lanškroun CZ448146953 on 3rd lactation.

Results list

CESTR

National Czech Fleckvieh Show
Brno 25.4.2023

Order	Catalogue number	ID of animal	Breeder	Sire
1st Lactation				
1.	208	CZ 379 899 952	Nahořanská a.s.	WALOT
2.	205	CZ 812 838 961	PROAGRO Radešínská Svratka a.s.	SISYPHUS
3.	212	CZ 812 715 961	PROAGRO Radešínská Svratka a.s.	SISYPHUS
2nd Lactation				
1.	220	CZ 436 122 953	Lišnická a.s.	DELL
2.	225	CZ 479 167 953	Agro Liboměřice a.s.	RENESMEE
3.	233	CZ 406 383 953	Zemědělské družstvo Chýšť	REMMEL
3rd Lactation				
1.	241	CZ 448 146 953	SŠ zem. a veterinární Lanškroun	ERBHOF
2.	244	CZ 441 375 953	Klas Nekoř a.s.	DELL
3.	240	CZ 421 737 953	Zemědělská a.s. Horní Bradlo	DAILY
4th and higher Lactation				
1.	250	CZ 358 761 952	Nahořanská a.s.	HUTERA
2.	257	CZ 330 974 953	Zemědělská a.s. Horní Bradlo	GLORIE
3.	251	CZ 352 616 952	Volanická zemědělská, a.s.	LATEX
Best collection				
1.	Nahořanská a.s.			
2.	PROAGRO Radešínská Svratka a.s.			
3.	PODORLICKO a.s. MISTROVICE			
Best Udder				
1.	205	CZ 812 838 961	PROAGRO Radešínská Svratka a.s.	SISYPHUS
Younger Champion				
1.	208	CZ 379 899 952	Nahořanská a.s.	WALOT
Senior Champion				
1.	241	CZ 448 146 953	SŠ zem. a veterinární Lanškroun	ERBHOF
Best female leader			**Best male leader**	
Michaela Plachá			Ján Kloboučník	

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