## europea <br> international

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6th

# AGRO CHALLENGE 

SLOVAKIA 2023

6th European Championship in Agriculture Skills Agro Challenge Slovakia 2023

15th - 18th August 2023
Nitra, Slovakia

| Competition organizer: | Europea Slovakia |
| :---: | :---: |
| Coordinator of the competition: | Secondary Vocational School of Veterinary Studies, Drážovská 14, 95012 Nitra, Slovakia |
| Competition date: | 15th - 18th August 2023 |
| Location of the competition: | 1. Secondary Vocational School of Veterinary Studies in Nitra disciplines 5-8, 10-18 <br> 2. National Exhibition Centre AGROKOMPLEX in Nitra disciplines 1-4, 9 |
| Competitors: | green sector - vocational secondary school students from 17 European countries aged up to and including 25 |
| Number of teams: | 18 teams |
| Contact: | Europea Slovakia europeasvk@gmail.com agrochallenge.nitra@gmail.com |
| Countries | Austria <br> Belgium <br> Czech Republic <br> Estonia <br> France <br> Germany <br> Hungary <br> Ireland <br> Luxembourg <br> The Netherlands <br> Norway <br> Poland <br> Romania <br> Serbia <br> Slovakia (2) <br> Spain <br> Sweden |

## PROGRAMME

15th - 18th August 2023

1. Tuesday 15.8.2023:

- 12.00 Lunch
- 13.00 17.00 Individual visit of the school
- 17.00 Instruction for the individual disciplines, including testing of the equipment (tractor, loader), drawing of lots.
- 18.00 Dinner
- 19.00 Relax time and programme for students, tasting of Slovak specialities for supervisorsleaders and guests.

2. Wednesday 16.8.2023: Secondary school of Veterinary Studies, Nitra

- 7.00 Breakfast
- 8.30 Opening ceremony of the competition
- 10.00 Agriculture skills competition of students
- 12.00 Lunch
- 12.45 Agriculture skills competition of students
- 18.00 Dinner
- 19.00 International evening for students, supervisors-leaders and guests

3. Thursday 17.8.2023: Agrokomplex Exhibition Centre Nitra

- 7.00 Breakfast
- 8.00 Transfer to Agrokomplex Exhibition Centre Nitra
- 9.00 Agriculture skills competition of students + exhibition tour on the site of Agrokomplex
- 12.00 Lunch (Agrokomplex Exhibition Centre Nitra)
- 13.00 Competition + exhibition tour
- 17.00 Evaluation and Gala evening with disco

Days of arrival: $14-15^{\text {th }}$ August Days of departure: 17-18 ${ }^{\text {th }}$ August

## REGISTRATION

## Registration started on February 1, 2023 and remained open until April 30, 2023

Your registration is valid only if completed by the national coordinators via the online form.

## TRAVEL INFORMATION



## Nitra is accessible

https://fesrr.uniag.sk/en/how-to-get-to-nitra-1583/

## By plane

Fly to the Vienna, Austria, Schwechat Airport - http://www.viennaairport.com/en/passengers Distance from Vienna to Bratislava is 60 km and journey takes app. 1 hour, Vienna to Nitra is 169 km1,5hour - We will pick you up in Vienna!

## By train

The capital Bratislava is connected with the railroad network of all neighbouring countries (Austria Vienna, Hungary - Budapest, Poland -Warsaw, Czech Republic - Prague, Ukraine - Kiev). Also the train connection between neighbouring cities and Bratislava is good, the train connection between Bratislava and Nitra is not so comfortable so we will pick you up in Bratislava Main Railway Station!

## By bus

Long-distance bus transport in Nitra is well developed to connect foreign destinations.
You can find detailed information available on https://cp.hnonline.sk/vlakbusmhd/spojenie/ and http://www.eurolines.sk/en.html
All buses arrive at the main bus station Mlynské Nivy in Bratislava city centre.

1. From Vienna (Austria) - to Bratislava ( 60 km ) - to Nitra ( 80 km ) (total 140 km from Vienna to Nitra)
2. From Budapest, Hungary - to Bratislava ( 220 km ) - to Nitra ( 80 km ) (total 300 km from Budapest to Nitra)
3. From Prague (Czech Republic) - to Bratislava, Slovakia (320 km) - to Nitra (100 km) (total 420 km from Prague to Nitra)

## By car

Vienna - Bratislava - Nitra: 140 km
Vienna - Bratislava: highway A6 Bratislava - Trnava: motorway D1, exit Nitra road No. 51
Budapest- Nové Zámky- Nitra
Budapest - Komárno: motorway M1 Komárno - Nitra: road No. 64
Prague- Brno - Bratislava- Nitra: 420 km
Prague - Brno: highway D1 Brno-Bratislava: motorway D2 Bratislava - Trnava: motorway D1, Exit Nitra road No. 51
Warszawa - Krakow - Bánska Bystrica - Zvolen - Nitra: 640 km
Warszawa- Krakow- Bánska Bystrica - Zvolen: road No. E77 Zvolen - Nitra: road No. E571

## RULES

1. AGRO CHALLENGE is a competition for full-time students of the green sector aged up to and including 25.
2. Participants must be current students of a school/institution that is a member of the national EUROPEA organisation.
3. Each country can send one team of 4 students - at least one competitor must be a female.
4. If a country cannot send a team, other countries can send more teams.
5. A maximum of 24 teams will be allowed to compete in Slovakia.
6. The EUROPEA National Coordinators will decide which team will represent his/her country.
7. Each team must be accompanied by at least one team leader.
8. The team leader is responsible for the good and positive behaviour of his/her team.
9. All team members must have valid health insurance and a valid driver's license.
10. AGRO CHALLENGE consists of 18 different practical tasks.
11. Each task will take a maximum of 15 minutes.
12. Depending on the different tasks, one or more students from each team will solve the tasks.
13. The best team in each task will be awarded a prize.

## TASKS OF THE COMPETITION

1. Stacking round bales
2. Changing blades on a Mounted disc mower
3. Changing wheels
4. Log splitting
5. Tractor driving with a trailer
6. Stacking square bales
7. Tractor driving with a water tank
8. Throwing straw bales
9. Making beehive frames
10. Guessing animal live weight
11. Identifying the eggs
12. Identifying different crop plants and their seeds in Latin
13. Fencing - Electric fence installation
14. Identification of diseases, insect pests and weeds
15. Calculation and preparation of the animal feed ration
16. Hand milking
17. Apple peeling
18. Milk quality assessment and milk products tasting

## Tasks will be realized in:

1. Secondary Vocational School of Veterinary Studies in Nitra (tasks 5-8, 10-18).
2. National Exhibition Center AGROKOMPLEX in Nitra (tasks 1-4, 9).



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## MAP

Secondary Vocational School of Veterinary Studies in Nitra - disciplines 5-8, 10-18


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## TIME TABLE

### 16.08.2023

Secondary Vocational School of Veterinary Studies in Nitra - disciplines 5-8, 10-18

### 17.08.2023

National Exhibition Centre AGROKOMPLEX in Nitra - disciplines 1-4, 9
16.8.2023

| Team | A5 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | A16 | A17 | A18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| T01 | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ |
| T02 | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ |
| T03 | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ |
| T04 | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ |
| T05 | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ |
| T06 | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ |
| T07 | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ |
| T08 | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ |
| T09 | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ |
| T10 | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ | $10: 30$ |
| T11 | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ | $10: 10$ |
| T12 | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ | $09: 50$ |
| T13 | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ | $09: 30$ |
| T14 | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ | $16: 40$ |
| T15 | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ | $16: 20$ |
| T16 | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $16: 00$ |
| T17 | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ |
| T18 | $09: 50$ | $10: 10$ | $10: 30$ | $10: 50$ | $11: 10$ | $11: 30$ | $11: 50$ | $12: 10$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ |


| 17.8 .2023 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| A1 | A 2 | A 3 | A 4 | A 6 |
| $09: 00$ | $09: 20$ | $09: 40$ | $10: 30$ | $10: 20$ |
| $15: 40$ | $09: 00$ | $09: 20$ | $09: 40$ | $10: 00$ |
| $15: 20$ | $15: 40$ | $09: 00$ | $09: 20$ | $09: 40$ |
| $15: 00$ | $15: 20$ | $15: 40$ | $09: 00$ | $09: 20$ |
| $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ | $09: 00$ |
| $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ | $15: 40$ |
| $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ | $15: 20$ |
| $13: 40$ | $14: 00$ | $14: 20$ | $14: 40$ | $15: 00$ |
| $13: 20$ | $13: 40$ | $14: 00$ | $14: 20$ | $14: 40$ |
| $12: 00$ | $13: 20$ | $13: 40$ | $14: 00$ | $14: 20$ |
| $11: 40$ | $12: 00$ | $13: 20$ | $13: 40$ | $14: 00$ |
| $11: 20$ | $11: 40$ | $12: 00$ | $13: 20$ | $13: 40$ |
| $11: 00$ | $11: 20$ | $11: 40$ | $12: 00$ | $13: 20$ |
| $10: 40$ | $11: 00$ | $11: 20$ | $11: 40$ | $12: 00$ |
| $10: 20$ | $10: 40$ | $11: 00$ | $11: 20$ | $11: 40$ |
| $10: 00$ | $10: 20$ | $10: 40$ | $11: 00$ | $11: 20$ |
| $09: 40$ | $10: 00$ | $10: 20$ | $10: 40$ | $11: 00$ |
| $09: 20$ | $09: 40$ | $10: 00$ | $10: 20$ | $10: 40$ |



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## 1. Stacking round bales

## Instructions:

1. The goal is to stack 3 large bales of straw on top of each other using a bale loader and then place them to their original location.
2. The first contestant enters the vehicle and the timer is activated by moving the vehicle or loader arms. The contestant places 3 bales of straw on top of each other and makes sure they stand securely. Any deviation of the bale from the vertical axis with the risk of falling/tripping is penalized by additional 10 seconds. After stacking the third bale, the loader backs away at least 1 m from the stack, is secured against movement by applying the brake and a hand signal is given to stop the timer. The third contestant (if applicable) must complete the task outlined for the first contestant.
3. The second contestant enters the vehicle and the timer is started by moving the vehicle or loader arms. The contestant places the three stacked bales to their original location inside the marked circles and makes sure the bales don't cross the circles. If the bale is placed over/across the marked line, 10 penalty seconds are added to the final time. The radius of the marked circles is 20 cm larger than the radius of the bales. The fourth contestant (if applicable) must complete the task outlined for the second contestant.
4. If only two contestants are on the team, both contestants must complete both operations: stacking and unstacking. After each stacking, the work must be interrupted (as is the case with the alternation of contestants): the machine must back away from the stack and the timer is paused. The contestant doesn't have to leave the vehicle in this case. The time measurement is restarted by moving the vehicle or loader arms.
5. The final time equals the total time in which two or four contestants stack and unstack 3 straw bales plus the penalty seconds.



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## 2. Changing blades on a Mounted disc mower

## Instructions:

1. Each team will be divided into 2 groups of 2 contestants.
2. The team's task is to replace four blades on a Kuhn GMD 16 disc mower.
3. The timer starts with the contestants grabbing the tools.
4. Next comes the exchange of blades. One group (two contestants) change 2 blades on one side of the mower and the other group changes 2 blades on the opposite side. The group loosens the screws first, disassembles the 2 blades, puts them on the table, and then mounts the blades back to their initial place. Afterwards, the contestants secure the screws and tighten them with a cordless screwdriver. The group at the opposite side of the disc mower also proceeds the same way.
5. The task ends with all used tools being placed back at their initial place. Also, the last member of the group will raise their hand. At this point, timer stops.
6. The time limit to complete the task is 10 minutes. Exceeding the time limit means disqualification.
7. The team is penalized 30 seconds for each incorrectly replaced blade.
8. Tools needed for changing the blades will be ready at the competition site.



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## 3. Changing wheels

## Instructions:

The aim of this competition discipline is to change the wheels on the front axle of a small tractor in the shortest possible time. The following tools are available: a hydraulic jack, $\mathbf{2}$ impact wrenches, $\mathbf{2}$ sets of impact wrench attachments and $\mathbf{2}$ sets of torque wrenches.

1. The first member of the pair sets the hydraulic jack in place so that it is able to lift the side of the axle on which the wheel is being changed after the wheel hub nuts have been loosened. When lifting, particular care must be taken to ensure safety at work, as this is a small tractor with a swing axle. For this reason, the jack is always closer to the wheel being changed so that only one side is lifted.
2. While the jack position is being prepared, the other member of the pair can start loosening the nuts from the wheel hub. An impact tightener should be used to loosen and the correct extension from the kit should be used.
3. Once all wheel hub nuts have been loosened (CAUTION, not removed!), the first member of the pair can begin the axle lifting operation.
4. Once the axle is safely raised, the second member of the pair completes the nut removal and proceeds with the wheel removal. Once it has been dismantled, he places it on the ground just beside the small tractor with the pupils swapping between them.
5. This is followed by reassembling the wheel onto the hub, where the student needs to put the nuts onto the hub first by hand and then partially tighten them using an impact tightener. When tightening the nuts, it is necessary to follow the method of tightening in the so-called cross (diagonal).
6. After the pupil has partially tightened all the nuts, the pupil operating the jack carefully lowers the axle back onto the wheels and puts the jack back in place.
7. Once the axle has been lowered back to the ground, the pupil operating the jack can proceed to tighten the nuts to the required tightening torque using the torque wrench. The torque wrench should be set to a torque of 100 Nm and then tighten all the nuts in a 'criss-cross' fashion.
8. Once all the nuts have been tightened, all the tools should be put back in place and the torque wrench set back to 60 Nm .
9. As soon as the first pair is finished putting the tools in place, the second pair on the opposite side of the small tractor can begin. There, the students have the same hand tools (tightener, set of attachments, and torque wrench) except for the jack, which is shared by both pairs.
10. The second pair then repeats steps 1 to 8 . When the wheel change is completed and the students signal that the discipline is finished, the timing is stopped and the judging proceeds.



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## 4. Log splitting

## Instructions:

The role of each team is to saw with crosscut saw a log of set length from the trunk.
The log should be split into 8 pieces that should be laid in prescribed shape into marked
place. Time limit is 10 minutes.

## Discipline description:

1. Discipline starts with the signal "START" with
 parallel start of timekeeping
2. Protective equipment use is necessary before start
3. The primal task is to saw 1 log from the 1 meter long trunk. Minimal length of the log should be 30 cm .
4. All person in team must participate on the job
5. Splitting of the log follows after sawing. Splitting takes place on prepared chopping block and splitting axe or wedges with sledgehammer can be use.
6. The log should be chopped into 8 parts, small fragments are not considered as correctly chopped log
7. The set number of chopped logs must be laid in 4-storey log cabin fire lay into marked place
8. Chopped logs should by laid in 4 storeys of two pieces, each lay is perpendicular to previous
9. Piling of the chopped logs can run together with splitting
10. Timekeeping will stop in the moment, when all tools will be placed on appointed place and chopped logs will be stored in given shape into the marked place
11. Timekeeping will be stopped by committee member with the signal "STOP"



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## 5. Tractor driving with a trailer

## Instructions:

1. Each team drives 4 -times up and down on L-shape track.
2. The best time to finish all 4 rides is decisive.
3. The time starts to be measured when the driver crosses the start line with front wheels till the moment when he reverses back to the initial starting position.
4. The tractor and trailer must be parked in the same position as at the start of the ride.
5. When the tractor and trailer are not parked in their initial position in the garage, the team is penalized by adding 30 extra seconds to their time result.
6. While the driver contestants are changed, the time will be stopped ( one member of the team must not drive in two rides one after the other) and the time starts to be measured again at the moment when the new driver crosses the starting line with front wheels.
7. It is necessary to have at least 2 drivers in a team to change but one driver must not drive in two rides one after the other.
8. Every team must take 4 rides and the result time of all 4 rides is decisive.
9. All 4 rides must be finished in 10 minutes. When the task is not finished in the 10 minute time limit, the points can not be counted to the total score.



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## 6. Stacking square bales

## Instructions:

1. Each team will have to stack a maximum amount of small square bales( 30 ) on a base surface within 10 minutes. The base must have 4 bales and the rest of the bales are stacked on the top.
2. Hay bales are stacked from the ground using either hands or at higher levels a pitchfork.
3. Each team member must take a turn at least once during the competition.
4. Only the whole bales which stay upright on the base surface will be counted.
5. One bale on the stack means one point.
6. If two or more teams stack the same number of bales , the winner is the team which stores 30 bales in shorter time.



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7. Tractor driving with a water tank

## Instructions:

1. The aim of the task is to show your driving skills - driving a tractor along a defined path with a water tank.
2. Various skills will be tested during the drive (slalom, reverse driving, driving through a narrow passage, parking).
3. A large tractor will be used for driving.
4. One driver performs the ride forward, the other driver performs the ride in reverse.
5. Points will be awarded for the speed (seconds), but also for accuracy, precision and carefulness of driving. The evaluation criteria of driving skills are:
o transport time (TT)
o total content of transported load = water (TV)
o keeping the track limits (TL).7.
6. The team that exceeds the time limit of 10 minutes will be disqualified

Competition area: reinforced asphalt area with artificial obstacles and turns, a marked defined area (within the premises of the Secondary School of Veterinary Studies in Nitra).

## The task of the contestants will be

- to transport the load (which is a tank with 10 litre of water)
- on the loading forks of the tractor/loader along the competition track
- in the shortest possible time keeping the track limits (driving within the marked edges and obstacles)



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8. Throwing straw bales

## Instructions:

1. The aim of the task is to throw the maximum number of small straw bales (10)with pitchforks to the top of a tall pile of large straw bales - all within 10 minutes.
2. All members of the team have to be involved.
3. Points will be awarded only for those bales that will be placed on top of the pile without falling back down.
4. Each bale that stays on top of the pile counts for one point.
5. If two or more teams stack the same number of bales, the winner is the team which places 10 bales in shorter time.



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## 9. Making beehive frames

## Instructions:

1. The aim of this task is to make two beehive frames - assembling and wiring them.
2. The task is performed by 4 team members who form 2 pairs. Each pair makes 1 beehive frame.
3. The competitors have to make 2 beehive frames according to instructions - put the frames together with nails and a hammer, drill holes for the wire, thread the wire through the holes, stretch the wire and curl the wire on two beehive frames ( $2 \times 2$ nails are used for the upper part and $2 \times 1$ nail for the lower part). 5 holes are drilled on the upper and lower part, through which the wire is threaded. Two nails are used to attach the wire. After the wire is stretched, it is curled with a wire-curling tool.
4. For evaluation, the time for making two frames is taken into consideration. For each nail that is outside the wooden frame, there will be a penalty of 10 seconds.
5. If the wire breaks, the team starts threading it again.
6. The team that exceeds the time limit of 10 minutes will be disqualified



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## 10. Guessing animal live weight

## Instructions:

1. Show your skills in estimating animal live weight.
2. The goal of the task is to estimate the live weight of selected (shown) animals within the time of 10 minutes.
3. Each team has to estimate live weight of the animals visually or by touch, afterwards to write the guess into the worksheet.
4. All members of the team are involved in completing the task and they can share their ideas. The time will be stopped, which will be written down, when the team hands in the completed worksheet.
5. After that, all teams' worksheets will be evaluated.
6. All live weight estimations done by each team are added up and this total sum of live weight estimations is substracted from the total sum of real weight estimations of the tested animals.
7. The difference between the total sum of live weight estimations and the total sum of real weight estimations of tested animals shows the ranking of the team.
8. The smaller the difference is the higher ranking the team gets.
9. In case some teams score the same points in weight estimation then the best time will be decisive.
10. The team that exceeds the time limit of 10 minutes will be disqualified.



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## 11. Identifying the eggs

## Instructions:

1. The goal of this competitive discipline is to correctly assign poultry and runners eggs to the respective species.
2. There will be 6 baskets of 5 eggs of different types of poultry and runners. The eggs will be marked with numbers 1 to 5 for identification. Each team member will draw 1 basket with a number from 1 to 6 . The team must identify 20 different types of eggs. Each team member identifies 5 types of eggs, sorted alphabetically from A to K (see below) and writes the answers in the table.
3. The timer starts by drawing the basket of the first team member and ends by identifying the 5th egg of the last team member. The number of correct answers and the time will be the basis for scoring and ranking. For an incorrect answer, the penalty is 1 minute.
4. The team with the best time and the most points wins.
5. The time limit after which the team will be disqualified is 10 minutes.

| A - hen/chicken | D - Japanese quail | H - Muscovy duck |
| :--- | :--- | :--- |
| (various breeds) | E - hunting pheasant | I - goose |
| B - wild turkey | F - pigeon | J - ostrich |
| C - guinea fowl | G - duck | K - emu |




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## 12. Identifying different crop plants and their seeds in Latin

## Instructions:

1. The time limit to complete the task is 10 minutes
2. Team members have to determine 8 names of seed types out of the 15 samples. Each seed is marked with a number.
3. Team members have to match the seed numbers to the correct Latin names and write them down in the worksheet.
4. Team members have to identify 8 plants based on the pictures or actual plants out of the 15 samples. Each plant is marked with a number.
5. Team memebers have to match the plant numbers to the correct Latin names and write them down in the worksheet.
6. Each team can get a maximum of 16 points, if teams achieve the same number of points, the team with the shortest time wins


## 13. Fencing - Electric fence installation

## Instructions:

The objective of this discipline is to set up an electric fence sized $4 \times 4 \mathrm{~m}$ and connect it to the electricity network in the least amount of time. The timer will be stopped after the electricity starts flowing into the electric fence.

1. Teams will have the opportunity to see a model electric fence upon arrival on the 1 st day.
2. All necessary materials will be provided, no material shall be touched prior to the start of the competition.
3. The poles must be staked into the soil and the electric wire must be placed as on the demonstration fence.
4. The wire must be positioned through the insulating devices.
5. Time will be stopped when the last of the tools is returned to its original location and after the electricity starts flowing into the electric fence.
6. Teams will be penalized with the loss of 30 seconds for:

- each wrongly driven post
- each wrongly attached segment of the rope
- wrongly attached / installed entrance to the electric fence
- wrongly connected polarity / wrong electricity connections

7. The team that exceeds the time limit of 15 minutes will be disqualified.



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14. Identification of diseases, insect pests and weeds of cultivated crops

Instructions:

1. Each team has to identify the names of diseases, pests and weeds in Latin using a set of 12 pictures, which are marked with the number.
2. Correct matching each number to a disease, pest and weed putting down into the worksheet with Latin names, the team gets 1 point, they can get 12 points in total.
3. The correctness of the pinpointing of diseases, pests and weeds is crucial.
4. In the case of the same number of points obtained by 2 or more teams, the best measured time of a team will be decisive.
5. The time limit to complete the task is 10 minutes.



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## 15. Calculation and preparation of the animal feed ration

## Instructions:

1. The objective of the task is to prepare 3 kg of complete feed mixture for a sow.
2. The whole team has to calculate the individual components of the feed mixture in kg based on the assignment (the percentage of each forage is given) .
3. They have to weigh the calculated components on the scales.
4. They must scrap the weighed feed on a scrapper.
5. Take the scrapped feed mixture to the appointed place.
6. Timing is essential and any inaccuracy will result in a penalty time.
7. Time limit after which a team will be disqualified: 15 minutes.

## Penalized inaccuracies:

Incorrect amount of components - each incorrectly weighed component +30 seconds. Inhomogeneous mixture +30 seconds, losses of feed mixture during scrappering +30 seconds.



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9) aqrokomplex

## 16. Hand milking

## Instructions:

1. Two members of each team must individually milk a cow udder model.
2. The hand milking will be performed.
3. Each member of the two will have to milk for 3 minutes.
4. The other two members of the team may assist (add liquid into the model and hold it).
5. The quantity of milked liquid will be evaluated for both competitors altogether.



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## 17. Apple peeling

## Instructions:

1. All four competitors compete in this discipline. Each member of the team draws an apple from a jar. They take a knife and cut the skin around the circumference of the apple as long as possible in the shortest possible time. Only one apple is available per person.
2. All four contestants peel their apple at the same time, the fastest as possible, in the shortest time without tearing the peeled apple skin.
3. When the last member of the team finishes the peeling, he puts down the knife, the time will be stopped.
4. The competitor takes the longest peel carefully by the end and holds it vertically lengthwise the ruler not stretching it. A second ruler is attached to the underside of the peel and its length is measured. The length of each peel and the measured time from the beginning to the end of peeling will be recorded in the table.
5. The result will be the length of the measured peel and the total time. The team with the longest peel wins. In the event of a tie, the peeling time will decide.



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18. Milk quality assessment and milk products tasting

## Instructions:

- Each competitor in the team must complete 2 tasks.
- The time of each competitor from the team is measured. Time limit: max 10 minutes. Once the time limit is exceeded, the team is disqualified.
- The team with the highest score wins.
- In the event of a tie, the sum of the times will be scored.


## Tasks

1) Identify the milk according to the type of animal (cow, sheep, goat):
a) There are 3 samples of milk ( 50 ml each) in a transparent cup labelled $\mathrm{A}, \mathrm{B}, \mathrm{C}$.
b) The competitor writes the letter of the sample to the type of animal (picture of the animal and name in English)

Sheep $\qquad$ Goat. $\qquad$ Cow $\qquad$
c) For each correct identification of the sample, the competitor will receive 1 point. The competitor can get a maximum of 3 points for this task.
2) Identify $\mathbf{3}$ (cow's) milk and $\mathbf{2}$ (cow's) cream by fat content:
a) There are 5 samples ( 50 ml each) in transparent cup, labelled 1, 2, 3, 4, 5
b) The competitor writes the number of the sample next to the milk and cream according to the fat content

MILK - fat 0,5\% $\qquad$
MILK - fat 1,5\% $\qquad$
MILK - fat 3,5\% $\qquad$
CREAM - fat 12\% $\qquad$
CREAM - fat $33 \%$ $\qquad$
c) For each correct identification of the sample, the competitor will receive 1 point. The competitor can get a maximum of 5 points for this task.


