





## 3.6 Event VI: Forestry Course

### 3.6.1 Preparation of the forestry course

This event is a team contest; all 4 contestants per team start together. It doesn't take place at the competition site but in a forest nearby.

Following equipment can be used:

- Before start the team become:
  - A map of the track: all 16 tasks are marked and the distance between the single tasks are on the map.
  - 2 Pencils, Protocol
  - Relascope tables / yield tables, calculator (or by the single task)
  - The relascope: without any marks in the shaft. The kind of relascope will be a stick of 1 m and a plate of 4 cm (the factor of multiply is 4).
  
- There will be clear signs on the track to find the tasks and the number of the task as follow:
  - The track is marked with **red/white** ribbons 
  - Numbering of the tasks:
    - Pay attention to **black** numbers on **yellow** background 
    - The order of the tasks is accidental!
  - One tree for task is marked with **blue** ribbon (task 1, 2, 5, 8, 9) 
  - Sample plots are marked with **yellow** ribbon (task 3, 4, 6, 7, 10) 
  
- The answer will be written or signed on a single protocol at every task (also starting number and country). This protocol is kept by the jury from this task. The contestants can write their answer on their own protocol. At every task the team must clearly mark or write the right answer with a pen.
- 2 judges (Int. / Nat.) watch the contestants by the task and don't support them. They collect the protocols.
- It is not allowed to take mobile phones or other utilities on the track.
- The track will be checked at the day of Forestry course early in the morning by the Jury.

Each team is appointed a time limit set by the organizing committee. The tasks should be solved within this limit – accept adventure and First aid. If the team exceeds the allowed time 20 penalty points are given for every minute.

The minimum size of sample plot (task 3, 4, 6, 10) is 0.1 hectare. The sample plot and the trees of tasks 1, 2, 8 and 9 must be marked noticeably.

The standing place of the sample plot (Task 10) will be marked!

By task 8 and 9 the contestant can not touch the stems. There must be a marked distance from min. 2 m between the stem and the contestants.

The second part of the course (tasks 11-17) is dedicated to general knowledge of forest-related tasks.

Total score is 6000 points. These points should be similar to the technical events (1.500 pts possible per contestant).

In the case of even results the team is the winner with the better time. If this result is the same too, the winner is the team with the higher points by task 10 a Sample plot - total growing stock.

### 3.6.2 Performance of the forestry course

Nr.	Task	points max.
1.	The age of the tree, years	350
2.	The height of the tree above the ground, meters	350
3.	The number of the stems, number / hectare. The stems belonging to diameter class 7 cm and above shall be included.	350
4.	Basal area, m <sup>2</sup> / hectare. The stems belonging to diameter class 7 cm and above shall be included. (Exactness 1 m <sup>2</sup> )	350
5.	Slope of terrain, in %. The estimate of slope shall be based upon the height difference between the two marked points. Slope shall be calculated as a percentage from the horizontal distance. (Exactness 1 %)	350
6.	Mean diameter (breast-height diameter), cm. (Exactness 1 cm)	350
7.	Size of the area, hectare. It is allowed to walk through the area. (Exactness 1/10 ha)	350
8.	Volume of the standing tree, m <sup>3</sup> (Exactness 1/10 m <sup>3</sup> )	350
9.	Volume of the saw log, m <sup>3</sup> (Exactness 1/10 m <sup>3</sup> )	350
10.	Sample Plot	
	a. total growing stock, m <sup>3</sup> /hectare	450
	b. growing stock of hardwoods; % / hectare growing stock of softwoods, % / hectare	300
11.	Determining tree species (Latin, English)	350
12.	Determining kinds of wood with bark (Latin, English)	350
13.	Determining animals, hunting (Latin, English)	350
14.	First Aid in the forest (situated), prevention of accidents * (English)	350
15.	Diseases and pests (Latin, English)	350
16.	Adventure (for example: shooting, national/traditional forest work)	350
	<b>Total</b>	<b>6000</b>

You can find the **evaluation** for the 16 task [here](#)

Tasks for the **First aid** can be downloaded [here](#) (ppt 618 kb). The First aid-"performance" consists in a practical test for the whole team.

The organizer will inform every team what will be in the first aid box by publishing it on the homepage and showing it during checking the chainsaws!

**The following list of trees, wood, animals, pests and diseases should help the competitors to prepare the tasks:**

Determining tree species (standing tree with foliage)

German	Latin	English
Fichte	Picea abies	spruce
Tanne	Abies sp.	fir
Gemeine Kiefer	Pinus silvestris	scots pine
Stieleiche	Quercus robur	english oak
Traubeneiche	Qu. petraea	sessile oak
Buche	Fagus silvatica	beech (common -)
Douglasie	Pseudotsuga menziesii	douglas fir
Lärche	Larix sp.	larch
Ahorn	Acer sp.	maple

Weide	Salix sp.	willow
Ulme (Berg-, Feld-)	Ulmus (glabra, arpinifolia)	elm
Eberesche / Vogelbeere	Sorbus aucuparia	rowan, mountain ash
Grauerle	Alnus incana	grey alder
Rot- / Schwarzerle	Alnus glutinosa	common alder
Kirsche (Vogel-)	Prunus (avium)	cherry, bird cherry
Birke	Betula pendula	birch
Esche	Fraxinus excelsior	ash (Common-)
Linde (Winter-, Sommer-)	Tilia (cordata-, platyphyllos)	lime / linden (Common-, Silver-),
Eibe	Taxus baccata	yew
Aspe – Zitterpappel	Populus tremula	aspen
Bergahorn	Acer pseudoplatanus	sycamore maple
Spitzahorn	Acer platanoides	norway maple
Feldahorn	Acer campestre	hedge or field maple

### Determining kinds of wood (log with bark)

German	Latin	English
Aspe – Zitterpappel	Populus tremula	aspen
Birke	Betula pendula	birch
Buche	Fagus silvatica	beech (Common -)
Eiche	Quercus	oak
Erle	Alnus	alder
Fichte	Picea abies	spruce
Kiefer	Pinus silvestris	scots Pine
Lärche	Larix sp.	larch
Vogelkirsche	Prunus (avium)	cherry, bird cherry
Esche	Fraxinus excelsior	Ash
Linde	Tilia	linden, lime

### Determining animals (body, head, trophy, footprint/track)

German	Latin	English
Rehwild, -bock	Capreolus capreolus	roe (deer, -buck)
Rotwild	Cervus elaphus	red deer
Elch	Alces alces	elk, moose
Damwild	Dama dama	fallow-deer
Wildschwein	Sus scrofa	wild boar
Rotfuchs	Vulpes vulpes	(european) fox
Dachs	Meles meles	badger
Marder (Edel-, Stein-)	Martes ( - martes, - foina)	marten (pine -, stone -)
Wiesel	Mustela nivalis	weasel
Auerhahn	Tetrao urogallos	capercaillie, mountain-cock
Birkhahn	Lyrurus tetrix	black cock
Haselhuhn	Tetrastes bonasia	hazel-hen
Gämse	Rupicapra rupicapra	chamois
Steinbock	Capra ibex	ibex, rock goat
Wolf	Canis lupus	gray wolf
Braunbär	Ursus arctos	brown bear
Luchs	Lynx lynx	lynx
Fasan	Pheasianus colchicus	ring-necked pheasant
Rebhuhn	Perdix perdix	grey partridge
Feldhase	Lepus europaeus	brown hare

Steinadler	<i>Aquila chrysaetos</i>	golden eagle
Habicht	<i>Accipiter gentilis</i>	goshawk
Turmfalke	<i>Falco tinnunculus</i>	kestrel
Wanderfalke	<i>Falco peregrinus</i>	peregrine (falcon)
Stockente	<i>Anas platyrhynchos</i>	mallard (duck)
Ringeltaube	<i>Columba palumbus</i>	Common Wood-Pigeon
Sperber	<i>Accipiter nisus</i>	sparrowhawk
Buntspecht	<i>Dendrocopos major</i>	spotted woodpecker
Grünspecht	<i>Picus viridis</i>	green woodpecker
Schwarzspecht	<i>Dryocopus martius</i>	Black woodpecker
Uhu	<i>Bubo bubo</i>	eagle owl
Rabenkrähe	<i>Corvus corone corone</i>	carrion crow
Elster	<i>Pica pica</i>	black-billed magpie
Eichelhäher	<i>Garrulus glandarius</i>	eurasian jay
Mäusebussard	<i>Buteo buteo</i>	common buzzard
Eichhörnchen	<i>Sciurus vulgaris</i>	Eurasian red squirrel
Biber	<i>Castor sp.</i>	beaver
Waschbär	<i>Procyon lotor</i>	raccoon
Rentier	<i>Rangifer tarandus</i>	reindeer
Wildkatze	<i>Felis silvestris</i>	wildcat

### Recognising pests, diseases and damages

German	Latin	English
Rotfäule	<i>Fomes annosus</i>	butt rot
Kiefernrrindenblasenrost	<i>Cronartium flaccidum</i>	scots pine blister rust,
	resin top of pine	
Fegeschäden		damages caused by antlers
Verbißschäden		browse impact, damages caused by mammals
Bläuepilz	<i>Ceratocystis</i>	blue stain
Fichtenborkenkäfer (Buchdrucker)	<i>Ips typographus</i>	typographer beetle, 8-toothed bark beetle
Kupferstecher	<i>Pityogenes chalcographus</i>	6-toothed spruce bark beetle
Großer Brauner Rüsselkäfer	<i>Hylobius abietis</i>	large pine weevil
Großer Waldgärtner	<i>Blastophagus (Myelophilus) piniperda</i>	large / common pine-shoot beetle
Kleiner Waldgärtner	<i>Blastophagus minor</i>	lesser pine-shoot beetle
Gestreifter Nutzholzbohrer	<i>Xyloterus lineatus</i>	spruce ambrosia beetle
Lärchenkrebs	Larch canker	<i>Lachnellula willkommii</i>