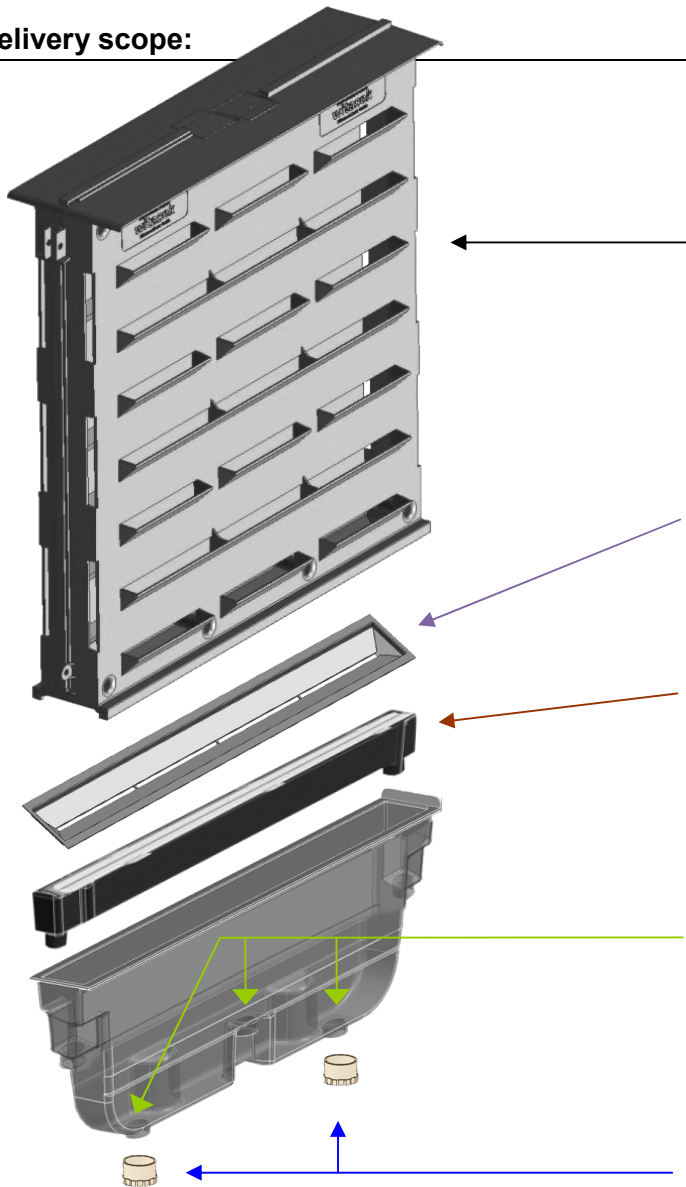


MultiWit® Bark Beetle Slot Trap

The mass trapping system



Delivery scope:



You receive fully assembled:

1 x slot trap body
Colour: dark brown/black

Note: The *AntiSmell* catch salt is provided inside the trap body.



1 x funnel
(removable)

1 x gutter with stainless steel screen
(removable)

3 x stainless steel screens, welded

2 x caps, included in the delivery scope
of the trapping tray
(these are provided inside the trapping tray)

Your benefits when using the MultiWit® slot trap:

- **Smooth surface** so that the beetles cannot cling
- **Improved trapping output** for mass trapping and monitoring
- **Less controls** thanks to wet trapping method resulting in significant **work and cost savings** — dry trapping is also possible
- **Several flexible applications** (wet trapping/dry trapping — for explanation see following page; single trap/three-trap star)
- **UV stable**
- **High functional reliability**
- Transparent collection container and therefore **easier and more accurate determination** of the amount of trapped beetles
- No impact due to wind, rain or snow
- **Easy to combine** to a three-trap star to increase the trapping output (for more information see page 3)
- **Reduction of the bark beetle population** — if slot trap is correctly used and combined with the corresponding professional forest hygiene, infestation can be reduced significantly in a short time

The *MultiWit*[®] bark beetle slot trap can be used as:

- Dry trap — in the area of monitoring
- Wet trap — in the areas of mass trapping and monitoring

Difference between the dry trapping method and the wet trapping method

The collection container of the *MultiWit*[®] bark beetle slot trap has been designed to allow switch-over from the dry trapping to the wet trapping method in a few simple steps.

Fig. 1: Wet trapping method

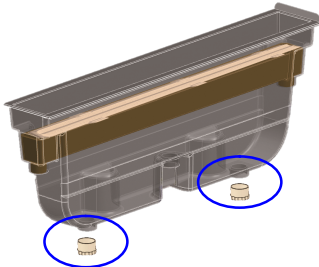


Fig. 2: Dry trapping method with gutter

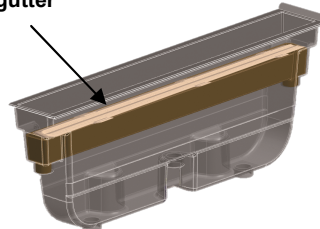


Fig. 3: Dry trapping method without gutter

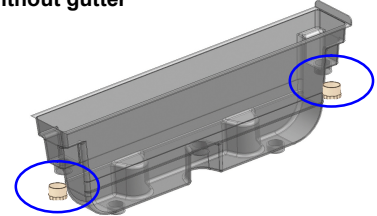


Fig. 1: Wet trapping method — Caps are attached to the two bottom outlets of the trapping tray.

Fig. 2: Dry trapping method with gutter — Caps are not required (*Please keep safe!*).

Fig. 3: Dry trapping method without gutter — Caps are attached to the two top outlets of the trapping tray.

When using the **dry trapping method** (see Fig. 2 and Fig. 3), the tray should be checked and emptied weekly during the main flight period of the bark beetles. This is especially important in wet weather as the trapped beetles start rotting which will deter newly arriving beetles.

When counting using a **measuring jug**, 1 ml beetles correspond to approx. 50 European spruce bark beetles or respectively approx. 600 six-toothed spruce bark beetles.

Item No.	Item designation
315851	Bark beetle measuring jug — 100 ml
315861	Bark beetle measuring jug — 250 ml

When using the **wet trapping method**, the containers need to be checked and emptied only every 4-8 weeks as the trapped beetles are preserved in a water-catch salt solution that prevents the formation of any smell of decay which would deter newly arriving beetles.

For the **wet trapping method**, two caps are attached to the two bottom outlets (see Fig. 1) and the catch salt-water solution is filled in. This can be mixed either directly in the trapping tray or alternatively in a separate container.

For this, mix 700 ml water with 150 g AntiSmell catch salt (1 pack).

Note: Do not remove the gutter when using the wet trapping method. Any rainwater penetrating from the top will be drained through it preventing dilution and thus a reduced effect of the catch solution.

During checks, monitor the fill level of the catch solution. If it has dropped, refill with water and catch salt in the right mixing ratio.

- Using the wet trapping method with *AntiSmell catch salt* will suppress the smell of decay over a very long period; weekly emptying is therefore not required which will reduce costs.
- An additional major advantage of the wet trapping method with *AntiSmell catch salt* is that the trapped beetles can no longer release diverting pheromones, which the beetles produce, for example, when there are too many beetles on a tree.

Installation instructions for use as single trap or three-trap star:

Single trap

For an upright single trap, roof battens can be used to construct a gate-like structure

(see Fig. 4) as DIY installation. Make sure to secure the trap so that any movement in the wind is minimized and the collection container can be removed.

Place the trap at a sufficient height to ensure that is not covered by ground vegetation, shrubs or trees.

Hang the dispenser low enough so that it is freely suspended in the trap approx. at the height of the fourth slot row from the top (see Fig. 4) and will not stick to the inner walls in humid conditions (check during periodic trap inspections).

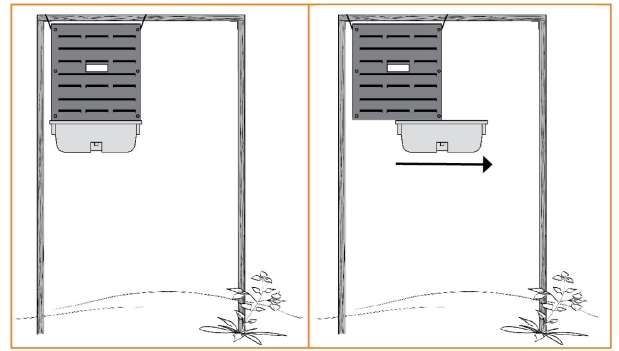


Fig. 4: Upright single trap

Three-trap star

Three units of the *MultiWit*[®] bark beetle slot traps can be combined with the *WitaTrap*[®] bark beetle three-trap stand to form a three-trap star (see Fig. 5). As the catching surfaces are distributed over 360°, three-trap stars delivered better trapping results throughout compared to a single trap in tests. The trapping output of three-trap stars ranges between 150 % and 250 % of the trapping result achieved with single traps. Another major advantage is the fact that one single pheromone will suffice to attract the beetles.

The *WitaTrap*[®] bark beetle three-trap stand is designed to allow attachment of the slot traps directly on the stand (if necessary, use a pair of pliers to bend the suspension hooks a little for easier attachment). **No fasteners** or the like are required. When hanging the unit, note the hook-in side to ensure that the *MultiWit*[®] trapping tray can be removed from all three trap bodies at any time, e.g. for emptying the beetles. The supplied pin is driven into the soil and the three-trap stand with the traps is mounted. Use the pre-assembled tensioning ropes and the ground anchor to stabilize the three-trap stand to withstand weather. The material of the three-trap stand is galvanized to prevent rust.

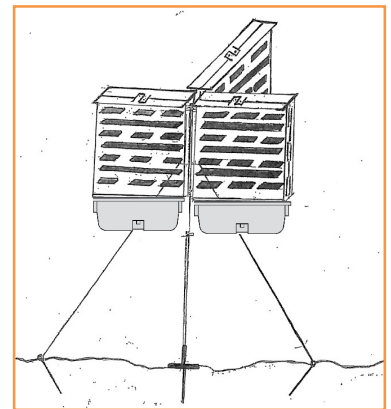


Fig. 5: Three-trap star

● Installation instructions – Three-trap stand:



Drive the ground anchor securely into the ground ...



... place the three-trap stand on top. Next, tension the 3 tensioning ropes well and anchor to the ground using the supplied pegs ...



... Hook the three slot traps to the hooks.
Tip: For easier threading, use a pair of pliers to bend the hooks slightly outward.



Always place the traps at a sufficient height to ensure that they are not covered by ground vegetation, shrubs or trees. When using the three-trap stand, only one pheromone is required to attract the beetles. It is fastened in the middle between the three traps, at the height of the fourth slot row from the top on the three-trap stand.

Information for infestation by European spruce bark beetles (*Ips typographus*):

a) Pheromones/attractants:

Item No.	Pheromone	Dispenser type	Effective period
324411	<i>Pheroprax</i> [®] Ampoule	Ampoule	6-9 weeks
323411	<i>Ipsowit</i> [®] Standard	Bag dispenser	6-8 weeks
323711	<i>Kombiwit</i> [®] Tube — ampoule for one year (for European spruce bark beetles & six-toothed spruce bark beetles)	Ampoule for one year	up to 20 weeks

b) Purposes of application:

- **Monitoring:** Monitoring of existing European spruce bark beetle population
- **Pest control:** Reduction of the population to a size that makes infestation of healthy standing trees unlikely.

c) Installation of traps in the terrain and baiting:

- Install the traps in the terrain from mid/end of March. Fill with a suitable pheromone before the first flight of the beetles (in average temperatures from 15-16°C in the shade). Depending on the packaging information of the pheromone, another pheromone is added following the end of the effective period to increase the effect of the attractant, i.e. two standard pheromones are required for two flights per year, three pheromones are required for three flights per year.
- On freshly cleared areas (e.g. windbreak) where infestation by the European spruce bark beetle is to be feared, the traps are arranged in a row in front of existing borders and at borders with sun exposure. Installation of one trap only might be sufficient for small clearances.
- The **distance of the traps to healthy trees** should be **10-12 m**
- The distance between the traps (both single traps and three-trap stars) should not exceed 50 m for low infestation, 30 m for medium infestation and 20 m for high infestation.
- The use of three-trap stars is recommended in case of very high infestation density.
- When using the single trap, fill the pheromone from the top through the tabs into the interior of the trap so that it is freely suspended at the height of the fourth slot row from the top (see Fig. 6). When using the three-trap star, only one pheromone is required that is secured between the three traps (at the height of the fourth slot row from the top) on the shade side of the three-trap stand.

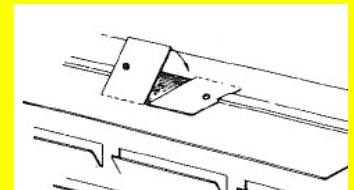


Fig. 6 Positioning the pheromone

d) Check:

- When using the dry trapping method, check and empty the tray once weekly during the main flight period — especially in wet weather — to prevent formation of smell of decay.

When counting using a measuring jug, 1 ml beetles = approx. 50 European spruce bark beetles.

- When using the wet trapping method, checks are only required every 4-8 weeks. Check the fill level of the water-catch salt solution. If it has dropped, refill with water and catch salt in the right mixing ratio. If necessary, replace the catch salt completely. When using the wet trapping method with *AntiSmell catch salt*, decay and rot smell is suppressed for an extended period and weekly checks are therefore not required. In addition, the beetles cannot release any undesired messenger substances.

Information for infestation by six-toothed spruce bark beetle (*Pityogenes chalcographus*):

a) Pheromones/attractants:

Item No.	Pheromone	Dispenser type	Effective period
321211	<i>Chalcoprax</i> [®] Ampoule	Ampoule	6-9 weeks
321411	<i>Chalcowit</i> [®]	Bag dispenser	6-8 weeks
323711	<i>Kombiwit</i> [®] Tube — ampoule for one year (for European spruce bark beetles & six-toothed spruce bark beetles)	Ampoule for one year	up to 20 weeks

b) Purposes of application:

- **Monitoring:** Monitoring of the existing six-toothed spruce bark beetle population
- **Pest control:** Reduction of the population to a size that makes infestation of healthy standing trees unlikely.

c) Installation of traps in the terrain and baiting: see European spruce bark beetle:

- The traps are placed in or at thickets, pole wood or matured wood of spruces where infestation by six-toothed spruce bark beetles in the lying or standing wood was detected during the current or the previous year. The number of traps will depend on the size of the area.
- The distance of the traps to healthy trees should be approx. 10-12 m

d) Check: see European spruce bark beetle

- When counting using a measuring jug, 1 ml beetles = approx. 600 six-toothed spruce bark beetles.

Information for infestation by the striped ambrosia beetle (*Trypodendron lineatum*):

a) Pheromones/attractants:

Item No.	Pheromone	Dispenser type	Effective period
321211	<i>Trypowit</i> [®]	Bag dispenser	only one dispenser per year is required
323821	<i>Lineatin Kombi</i>	Bag dispenser	only one dispenser per year is required

b) Purposes of application:

- **Monitoring:** Determination of existing wood at risk to protect the lying wood with insecticides on a preventive basis
- **Pest control:** Reduction of the population by mass trapping over several years in order to minimize the frequency of infestation on freshly harvested wood
- **Cleaning of wood storage areas:** Trapping of beetles in wood storage areas where infested wood or wood that might be used for breeding is stored or where the beetles might overwinter in the forest soil.

c) Installation of traps in the terrain and baiting:

- Install the traps in March after the first frost-free days. Bait the trap with the corresponding pheromone before the beetle flight. Refilling with pheromone is not required as one pheromone will suffice for the flight period.
- The traps are installed at existing spruce forests if infestation was detected in the lying wood during the current or the previous year.
- The distance of the wood storage areas used in the previous year to the new storage areas should be at least 50 m. Beetle populations in wood storage areas used in the previous year should be reduced as the beetles will overwinter in the forest soil from July. New infestation in the next year can thus be reduced. Always install the traps in last year's wood storage area.
- Make sure to use three-trap stars if beetle populations are very large or respectively at places where high trapping numbers have been identified in control traps (1,000 beetles or more).
- Install the traps at least 30-40 m away from the border in the interior of the existing forest, do not install them directly next to trees (distance from the trunk at least 1 m).
- The distance to wood storage areas should be approx. 50 m, the distance between the traps should range between 15 m (for three-trap stars and in particular for wood storage areas) and 30 m (for single traps).
- When using the single trap, fill the pheromone from the top through the tabs into the interior of the trap so that it is freely suspended at the height of the fourth slot row. When using the three-trap star, only one pheromone is required that is secured between the three traps (at the height of the fourth slot row from the top) on the three-trap stand.

d) Check: see *European spruce bark beetle*

- When counting using a measuring jug, 1 ml beetles = approx. 130 striped ambrosia beetles.
- It is not necessary to inspect the standing existing trees as the **beetle does not infest standing wood.**

Other important information

- The *MultiWit*[®] slot trap can be used to trap almost all types of bark beetles — contact us, we have a wide selection of pheromones available. www.witasek.com
- Only correct and consistent use of the *MultiWit*[®] bark beetle slot trap will deliver the desired results.
- The main flight period of the different beetles will vary depending on the climatic conditions — to determine the local main flight periods, install a few traps and check them frequently. Always check neighbouring trees for possible infestation!
- Pour the trapped beetles in a container and kill them outside the forest. They can also be used as fish food.
- If the traps remain on the site over winter, remove the trapping containers, clean them and preferably store them in a place protected from frost.

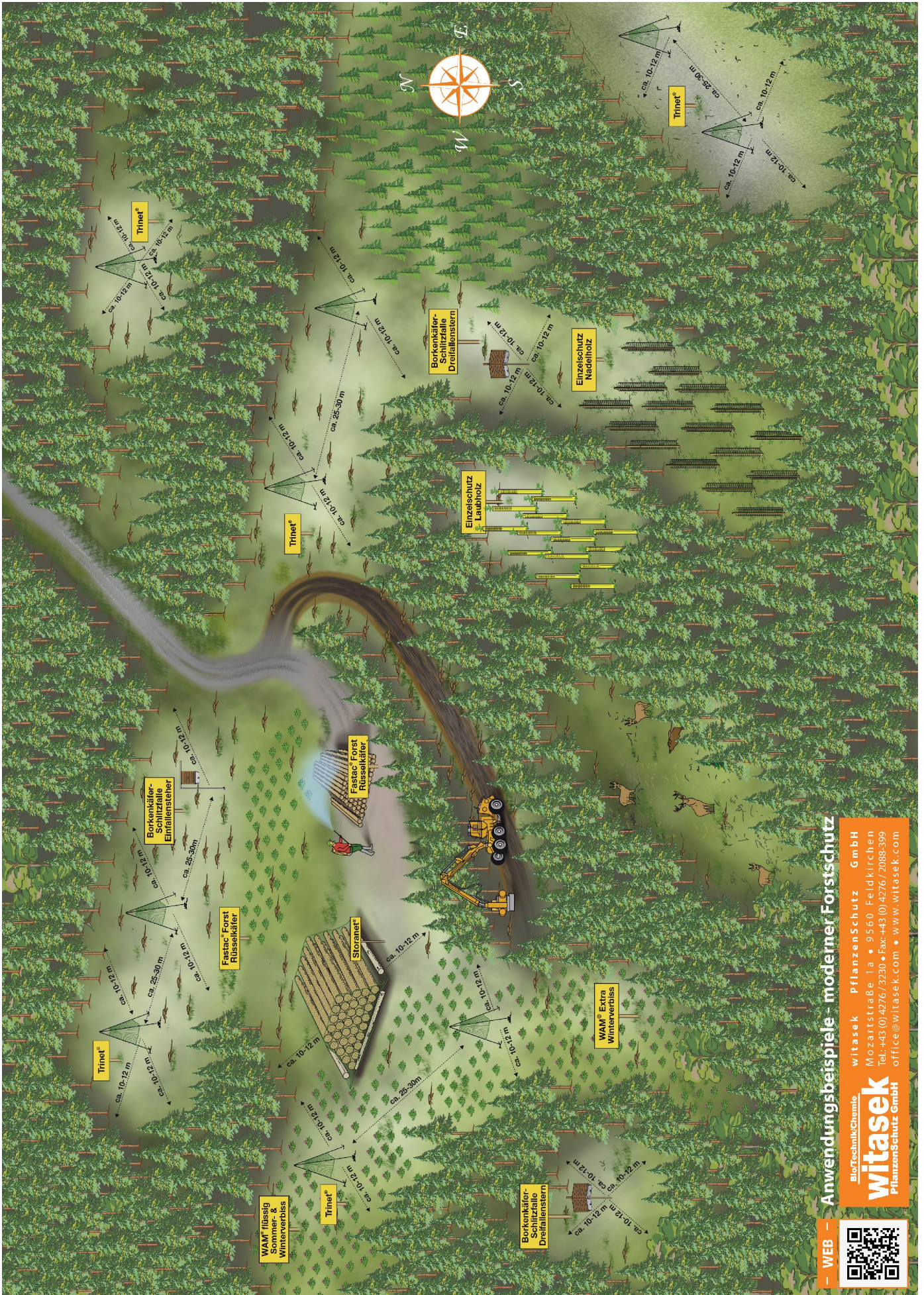
For reorders:

Item No.	Item designation
314051	MultiWit [®] Bark Beetle Slot Trap
313111	MultiWit [®] trapping tray, complete excluding funnel
391521	Gutter for MultiWit [®] trapping tray
391541	Cap for MultiWit [®] trapping tray
391411	AntiSmell catch salt (2 x 150 g per pack)

Reorders can also be placed for all other components of the trap individually!

For other protective products for your plants refer to our main catalogue.
Request the main catalogue at: 0043-(0)4276-3230 or by e-mail at office@witasek.com
www.witasek.com

Forest sketch – The correct use of forest protection measures



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