

Purpose of the present films

- The present films serve as an accompanying theory material for the introductory course on natural beekeeping.
- To complete understanding also illustrative material at the course and oral observations are particularly necessary.
- The course is addressed to people who have previously read the basic reading "Apiculture pour tous" of E. Warré.



Introduction to natural beekeeping

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www.freethebees.ch

www.natuerliche-bienenhaltung.ch

04.12.2014, Zollikofen, Inforama Rütli

agenda

- Expectations in addition to the advertised price targets
- **Location overview**
- **Important basic sequence in the hive**
- **What is "Semi-natural beekeeping»**
- **My beekeepers goals**
- **A beekeeper cycle of A..Z**
- **Legal situation**
- **Differences to Warré**
- **various**
- **REFERENCES**
- Review of Learning Objectives
- Feedback Form

Set learning goals

Course content according to tender

- Biology And life of bees: In nature and in the beehive
- The Different methods and beehives and their advantages and disadvantages
- Imker-Year expiration: How do I get bee? How do I get a beehive? Where do I go to the box? As one lodges a bee?
- What Needs to be monitored, when action must be taken? How to deal with Varroas? How and when should I feed? How and when can I harvest? What material do I need minimal?
- Practical Exercises using the Warré bees box
- Notwendige Adjustments to the original idea for Warré a success

Learning objectives according to tender

- My Own beekeeper objectives are defined and I know what material and with what beekeepers method I can achieve this
- I am able to enter their own bees in the apiary in May
- I Can arrange reviews of other beekeepers and this countered with arguments



Location overview

Thousands of insects or an intelligent mammal ..?

Our ancestors: *Holy, divine,
sun animal*

In the 19th century: *vertebrate*

Prof. Dr. Tautz: *mammal*

- Low number Descendants
- The females produce larval food for the offspring (milk / royal jelly)
- Cervical wax cells =
Perfectly controlled conditions
- Temperature: 35/36°C
- brain larger than certain mammals ..!
 - Able to learn
 - Cognitive Fähigkeiten: recognize identifying,
 - Intellectuals Abstraction ability



What does accordingly: Swarm
oppression?

Artificial offshoot education?
Cutting out drone brood?

Not just today, for a bee ..

Intensive farming

- pesticides
- monoculture, lack of plant diversity, costume gaps
- Probably fertilizers, genetically modified plants, etc. Civilization

- 1m2 concrete per second ..

But: The biodiversity in Zurich is bigger than in the country ..

- Possibly. and the electromagnetic radiation

Prolific honey bee

- **Eradicate the swarm Tribes**
- **Artificial propagation**
- **Pesticides (Bayvarol, Checkmite +, Perizin, etc.)**
- **Formic and oxalic acid**
- **sugar feedings**
- **Human selection criteria**
- **Mobile Wabenrähmchen, bee transports, imports race**
- **Varroa Ecological Infrastructure**

- **Lack of nesting sites for bees**

/ Situation currently



The location is not
always quite so clear,
as the first to the
View appears!

As in California, is
geimkert intensively in
Switzerland!



In fact, the wild honeybee in Switzerland has died!

- lack of natural nesting sites

(Old trees with natural cavities)

- Malnutrition due to intensive agriculture

(Monotonous diet such as rape, costume gap in June)

- Verzüchtung by beekeepers

(Feeding, treating, swarm influence, artificial propagation, selection on income criteria, etc.)

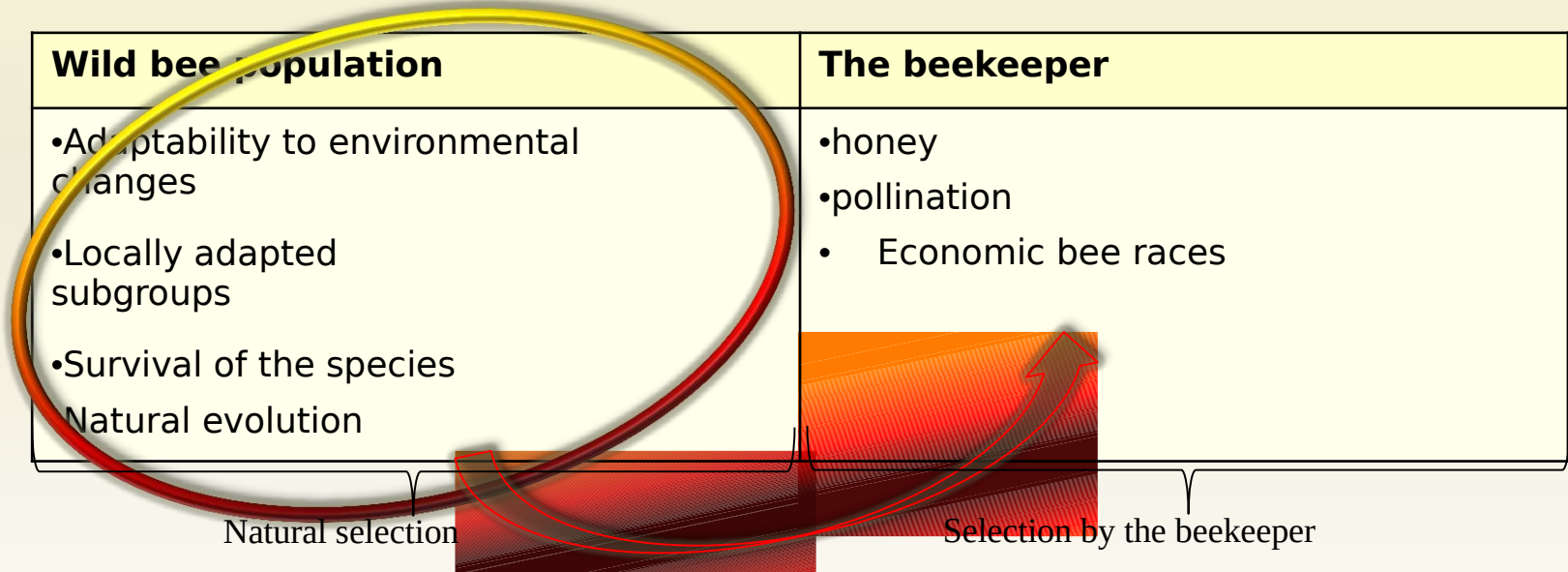
- Environmental toxins

(Especially pesticides)

- Varroa

(Caused and kept alive by the beekeeping)

New responsibilities for us beekeepers!



New strategic objectives necessary beekeepers

1.The long-term survival of the bee

Rebuild of bees networks with natural and natural bee colonies

maintained 2.Bestäubungsleistung

Not only with the intense honey beekeeping, much more with the natural beekeeping

3.Ensure honey production in perfect quality

Continue with the production, like we do it already practicing fine adjustment: '*Intense honey bee*' □ '*Extensive honey bee*'



**An important base
flow in
beehive**

Natural and influenced processes in the beehive

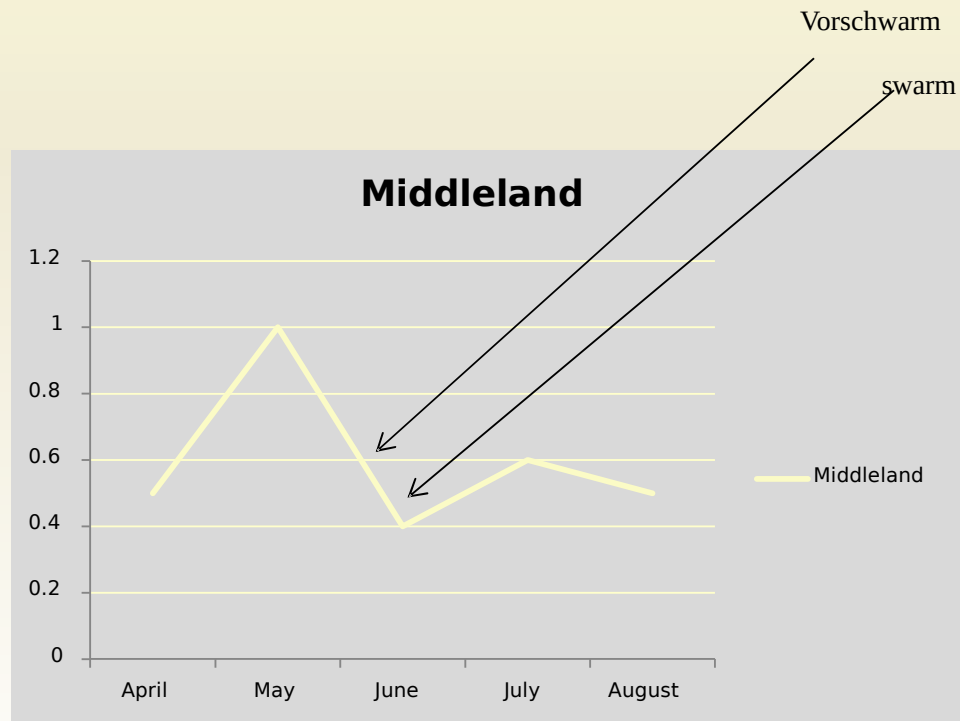


Tracht conditions in large parts of Switzerland

May head garb

June Tracht gap

July / August Läppertracht



Tracht conditions in large parts of Switzerland. Qualitative representation, no reliable figures!

Malnutrition today worse for nature as Varroa!

try

- Fixes prey volume without placing a honey chamber in spring
- A one here colony of common bee races (eg Karnika)
- No feeding, no stimulation

Result in spring

- The people says with great certainty and gives a first and a swarm.

Result at the end of the bee season

- Not enough food for the winter!
Neither parent colony, nor advantage nor swarm
- 90% bee losses in the first year!
But not all..!



Wax renovation Age wax, new wax ..

dogmas

- In beekeeping circles decried and regarded as dangerous: Old, dark honeycomb ..
- From inexperienced Warré disciples praised: Permanent wax renovation with beautiful, bright honeycomb ..

And what does this nature

- For millions of years: wax is old and black, wax moth eats and cleans a nest, attract new bee colonies
- A queen lays her eggs first in their old used honeycomb before studded new "pure" honeycomb
- A swarm refers prefer a used, old nest as a new cavity
- The dark coating with propolis: antibacterial, antifungal and antiviral effect

Wachserneuerung in natural beekeeping

- Difficult, wax is much slower renewed when Warré has experienced this!

30 million years freely accessible Altwaben of bee brood nests
in nature have led to no problems ..!



**What is
natural
Beekeeping?**

Principles of natural beekeeping

In our attempts to approach the natural beekeeping, we use the following basic principles (Phil Chandler, Bernhard Heuvel):

1.The manipulations and interventions by the beekeepers in the Bee lives are reduced to a minimum

2.Nichts is placed in the hive, which harms bees, humans or the natural environment or could damage. Nothing is removed from the hive, which the bees can not do without.

3.The know bees what they do. Our task is to learn from them and to provide them optimal living conditions within and outside the hive, under which a natural health

Bees is possible only.

We beekeepers are facing a dilemma!

- I use a honey super on ..
 - .. and influencing (delay, possibly even preventing) the swarming
- I use only undeveloped volume below ..
 - .. and have annual swarms
 - .. which have neither mother nor people Vorschwarm nor swarm end season enough food reserve
 - .. and need supplementation unnatural or take big losses over the winter in sale

No "Right" and no "false" goals are achievable only through diversification

	Natural bee colonies	Semi-natural beekeeping	Extensive Honigmkerei	Intense honey bee
Prey und Volumen-changes	Fixed volume, eg ausgehöhlter Baumstamm	Volume expansion * below the brood (Undeveloped volume)	Volumenerweiterung oberhalb the brood nest (Honey Room)	volume expansion above the brood nest (Honey Room)
proliferation	Natural swarm	Natural swarm	Vorswarm course. Swarm possibly by cuttings education anticipated.	offshoot, Artificial swarms, Queenbreeding
feeding	X	Just to colony losses to prevent. mixture Honey / sugar.	Mix honey / sugar	sugar
Honeycombs (brood)	Naturwabenbau, Stabilbau	Naturwabenbau, Stabilbau	Naturwabenbau, possibly frames without center walls	frames with Means wax walls, mobile construction
Varroa treatment	X	Of course, (eg essential oils)	Essential oils, possibly oxalic	formic acid, Oxalic acid, acaricides
harvest	natural Flocks, possibly something Honig nach years	Of course Esch heat, Small amounts of honey for private use.	natural Swarms, cuttings, honey	Honey, cuttings, from Time to time natural swarm.

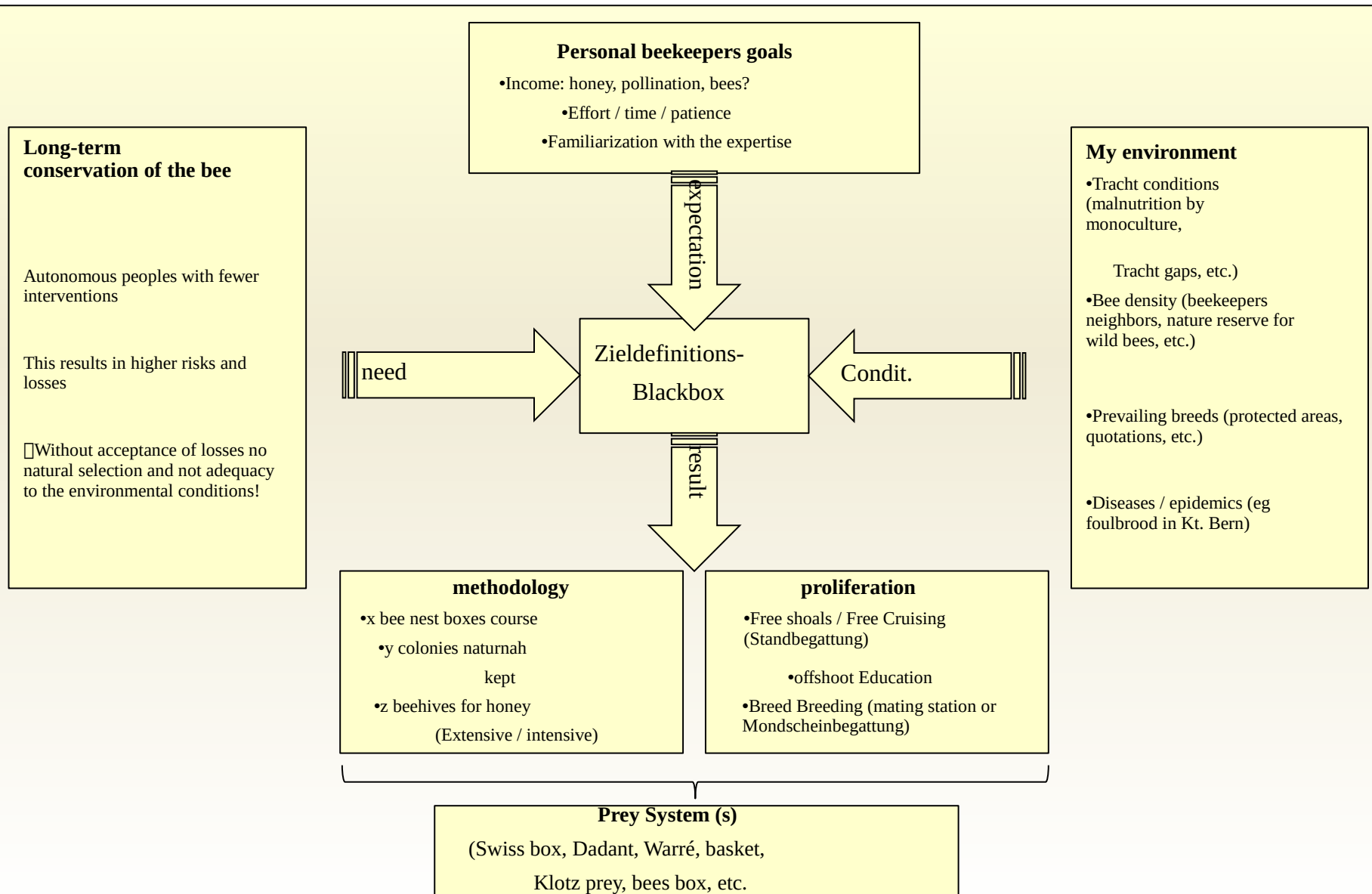


definition my
beekeepers goals



Definition my beekeepers goals

What factors are taken into account



Possible "portfolio" of an amateur beekeeper

1 Klotz prey
Naturally



No job losses High

Completed course

2 WARRES
naturnah



Less work

Gentler treatment

Feeding necessary swarms as
income

4 WARRES
extensive

(Or any other
common
Prey systems)



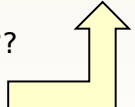
overtime

More knowledge
treatment necessary

Honey, swarms,
offshoot

} pollination

My own goals

My responsibility as a beekeeper	[Num. natural and near peoples]		☐	 International natural / close
How much honey I expect?	[Kg / year]		☐	 Peoples extensive / intensive
Prefer bees 'produce' and multiply?	[Num. Colonies per year]		☐	 peoples close to nature
Am I interested in the pollination?	[M2 for pollination]		☐	 peoples close to nature
How much time can I invest?	[H / month]		☐	??? 

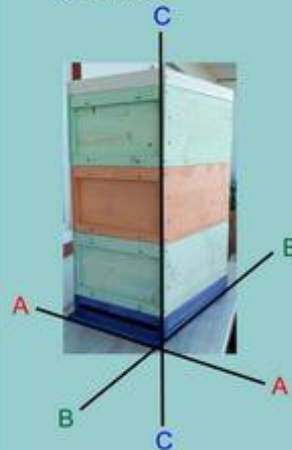


**The launch of a
Neuimker**

box systems

Abmessungen der HS-Beuten

A = Breite
B = Tiefe
C = Höhe



Langstroth-Beute

A = 414 mm
B = 504 mm
C = 720 mm

Zander-Classic

A = 381 mm
B = 515 mm
C = 708 mm

Zander-Liebig

A = 427 mm
B = 515 mm
C = 708 mm

Zander-Profi

A = 450 mm
B = 515 mm
C = 708 mm

6W-Zander-Ableger

A = 236 mm
B = 515 mm
C = 340 mm

DN-Deutsch-Normal-Beute

A = 453 mm
B = 453 mm
C = 714 mm

12er Dadant US-Beute

A = 504 mm
B = 504 mm
C = 671 mm

Abbé Warré

A = 336 mm
B = 336 mm
C = 930 mm

HS „Kompatibles Beutensystem“ für Dadant-US und Blatt, Langstroth, Zander und DN

A = 414 mm
B = 504 mm
C = NN mm

Langstroth-SL

A = 414 mm
B = 504 mm
C = 720 mm

Schweizer Mass-Beute

A = 480 mm
B = 369 mm
C = 859 mm

HS-MiniPlus

A = 270 mm
B = 270 mm
C = 270 mm

HS-MiniPlusLang

A = 270 mm
B = 500 mm
C = 270 mm

12er Dadant Blatt

A = 504 mm
B = 487 mm
C = 661 mm

10er Dadant Blatt

A = 414 mm
B = 487 mm
C = 661 mm

Kuntzsch Breit-Beute

A = 515 mm
B = 381 mm
C = 798 mm

Rough classification of the current systems

- Magazine
- Dadant
- Warré
- Segeberger
- Etc.



- Behind treatment boxes
- Swiss caste system Bürki



- Top Bar Hives

- log hives / Zeidlerhöhlen



- beehives



- Weissenseifer hanging basket

Warré than optimal prey System

Why?

- All methods of "natural" to "intensive" imkerbar
- Simple in construction
- Conveniently producible
- Little precision required (for less experienced crafters)



1 pallet

Where the prey?

- From carpenter near you
- waste wood use
 - *Bulk orders for joiners*

Individual pieces are expensive ..

- From solid wood carpenter in Vienna
- Depending on availability at FreeTheBees
 - Beware of the volume of transports! • 20 ready booties ☐
 - 1/2 Camionette • Pre-Finished Wood for 20 hives ☐

Technical changes compared to the original Warré

- The original roof is costly and serves only aesthetic aspects
- The jute with the flour dough seems unnecessarily complicated □
Insect net is better!

- The complex Warré-feeder is not necessary

- The entrance hole in Warré soil can clog in the spring and is dissolved suboptimal

- To measure the Varroa infestation is a modified varroa bottom rec

the direct sun

new roof

- roof (no air passage necessary)
above can complete a full course
- roof provides protection against rain
 - .. and protection against



will..

New entrance

- angle longer than flight board protects against snow and always leaves
- Plastic angle can be nibbled by mice



Insect net instead of jute



are normal!

Modified varroa use



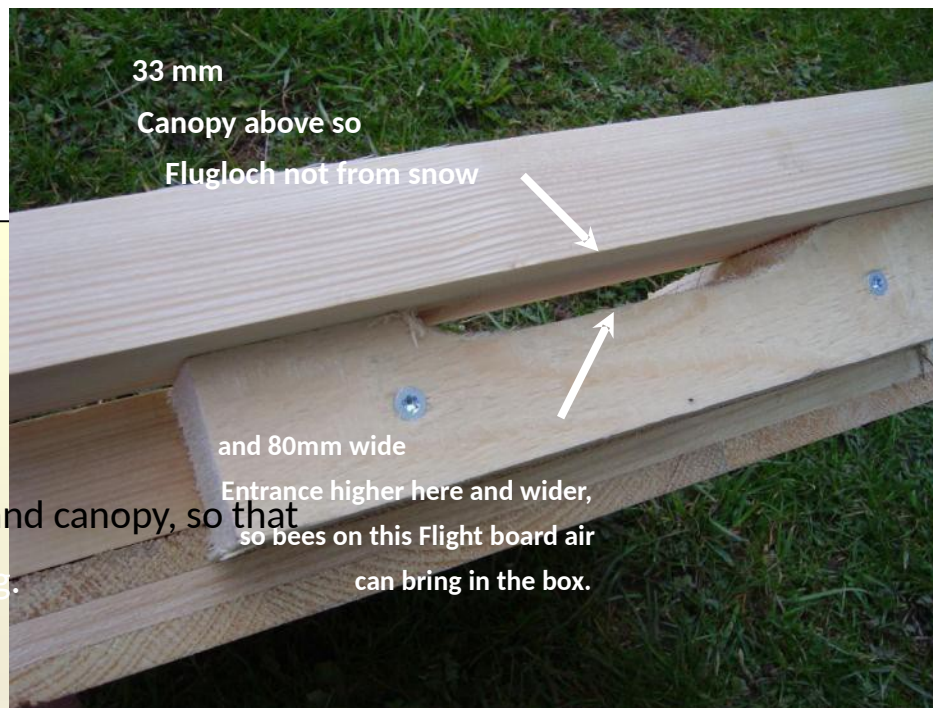
Inox is used only temporarily

Many dead bees in
Spring on the ground

can be.

Optimised ground with higher-laid Flugloch and canopy, so that

Flugloch even in winter never can clog.



may be clogged.

Entrance here about 8mm high

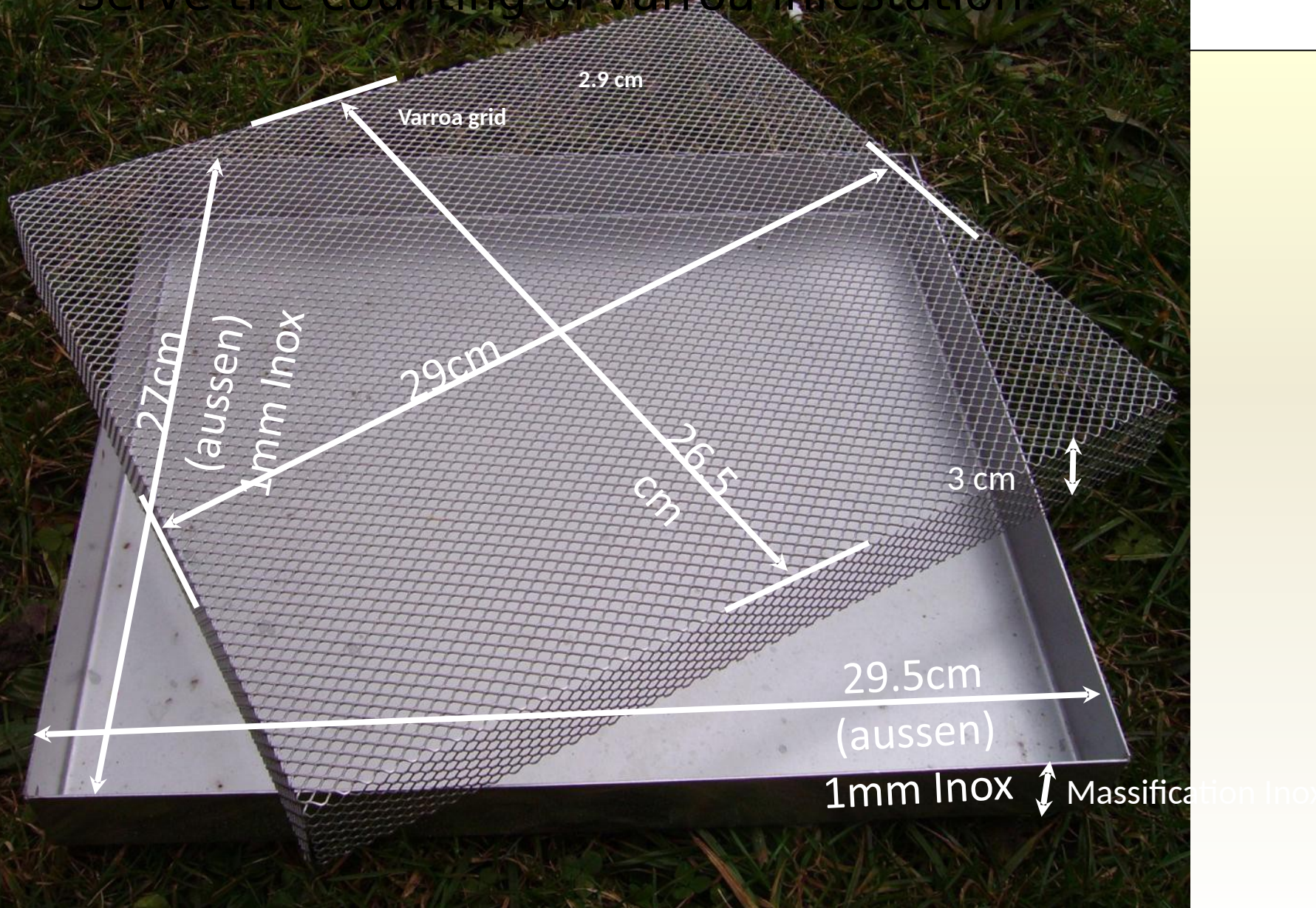


can.

Rear bar not secured to the floor so that the stainless mesh
in and postponed



Serve the counting of varroa infestation



Location: Almost anything seems possible!

- information according Warré note
- Possibly better without full midday sun
- Flugloch not southward, unless shading available
- boxes rather in the air than on the ground
 - *Example for landing on the ground*

Impact ground sockets of the Landi ..



(See slide further back)

First of all material weigh!

- First weigh absolutely empty loot (items)
- Rib with / without window
 - floor, roof and cushion

- *Why? This is important later to estimate roughly the honey stores before winter*

Possibility for a start

Opportunities to start

- Nature Swarm
 - most natural and cleanest of all possibilities
 - No guarantee that you really get a swarm
 - Sometimes little / late swarms, then what can not store enough honey insufficient
 - artificial swarm
 - Optimal start, thanks to the recovery head garb in May
 - artificial swarm for a Warré with min. 1.5kg bees
 - the end of April, at the start of the main flow (flowering dandelions)
 - offshoot / young people / business people
- Buy • peoples from the previous year
- offshoot formation during the main flow

Thomas Ruppel, mellifera Man on youtube).

Also regarding bees breed is the natural beekeepers face a dilemma

- Pure line preservation
- either resist natural ..
- ..or reserve
- Free swarms
 - Each year, new intersections
- Actually, we would have the black bee (*Apis mellifera mellifera*) hold, but there is little more protected areas for (see www.mellifera.ch

)

• *Alternative for savvy beekeepers: With the so-called Mondscheinbegattung can get a race on his own stand (see www.gedb.ch*

integrate

Recommendation for beginners

- bees as possible from their own region
- Avoid bees transport possible
- No imported bees

- For example, empty pillow (mosquito net) set up.

Much air in bees transports ..!

- Bees can verbrausen during transport ..
- The bees produce a heat wax melts!
- The entrance hole is not enough for ventilation during transport.
- So the top during transport open as possible.

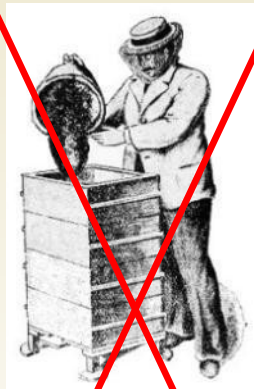
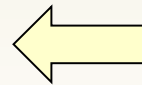
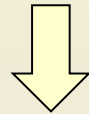
- Less hassle

Einlogieren a natural swarm

The sooner and the larger, the better!

Filling whenever possible in reverse booty!

- Simple, fast
- Less smoke



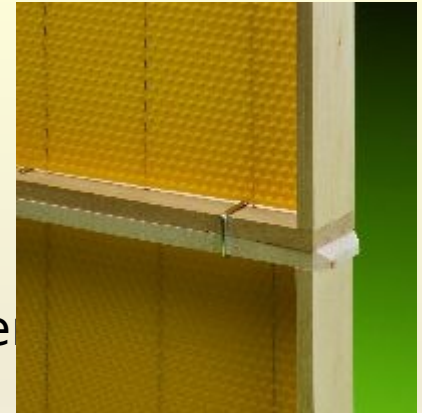
Einlogieren an art swarm

- Einlogieren as in nature swarm
- artificial swarm can be supplied from a beekeeper in a swarm-catching box
- Optimal, as in the picture, an artificial swarm of 1.5kg end of April
- Beekeepers deliver reluctant as many bees before the main flow



Einlogieren a Nucleus

- Framework Agreement clip
- The Honigrähmchen from a Swiss hives (System) into
- Conventional beekeepers can, if they know it early form offshoots on CH-Honigrähmchen
- Ca. 7 CH-honeycomb fit into a Warré into
- An offshoot comes for example to about 4 honeycomb. The rest i



- For details see feeding later

Feeding or not ..?

- Any Feeding overrides the natural selection and thus is not sustainable ..
- An unlined swarm survived usually the costume gap in June, unless the Tracht- and / or weather conditions are particularly unfavorable
- By feeding the launch and early development can be favorably influenced
- 2 to 4kg feed syrup as starters seem to be not entirely wrong
- If possible, honey, most honey / sugar, only if not possible, pure sugar

Alternatively FreeTheBees Modified Warré

From where?

- Inspired by Traditional Japanese Beehive
- well-practiced earlier in Portugal

Why?

- Even easier and cheaper producible (no groove)
- More natural and gängigerer Naturbau
- Allows less high sides and thus harvesting small quantities of honey

- complicated but the inspection





The second year

and cherry

Setting up / stepping down

- Stocky is analogous to Warré normally empty (undeveloped) volume (frame with top carriers)
- Free volume down never hurts, not even in winter
- will • Stacked as Honigraum
- Either a vorverbaute frame from last year

- An empty frame with structural members which
- 1 Head 2 Upper support
least two
• At the bloom of dandelions
"ladders" of
honeycomb or
middle wall! 2
upper support 1
Head 2 Upper
support



- Heavy frames are harvested above.

3 sides almost always enough

- With practice one can Warré almost constantly be performed on 3 elements

- 
- **Heavy frames are harvested above.**

A few general thoughts on the Varroa

Dr. David Heaf, a great Warré beekeeper in the UK:

"Anything did opposes the mite just delays the arrival of co-adaptation"

The Varroa is much more of a biological indicator
Symptom phenomenon as a serious cause!

Another big, are not mentioned intentioned
has the Varroa even dedicated a love letter!

At least 3 treat me well-known British Beekeepers
among their conventional beekeepers colleagues not
more. «First 2 or 3 years a little difficult, then ok. Not

Experiment by Martin Dettli, AGNI, with support from

Experiment no. 1

Bees survive without treatment!

try

- 10 bee colonies without Varroa treatments

		result
year	losses	1
	3/10	2
	4/7	3
	2/3	

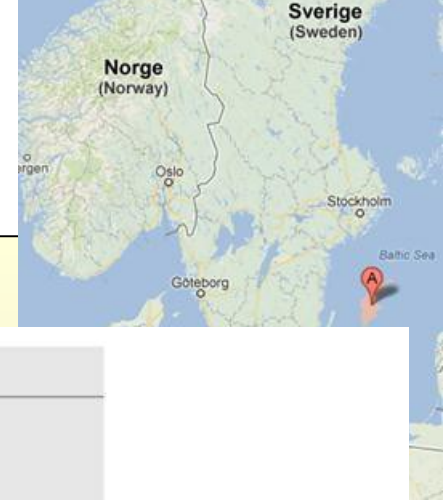
Total ~ 50%

(Ø 2011/2012 > 50%)

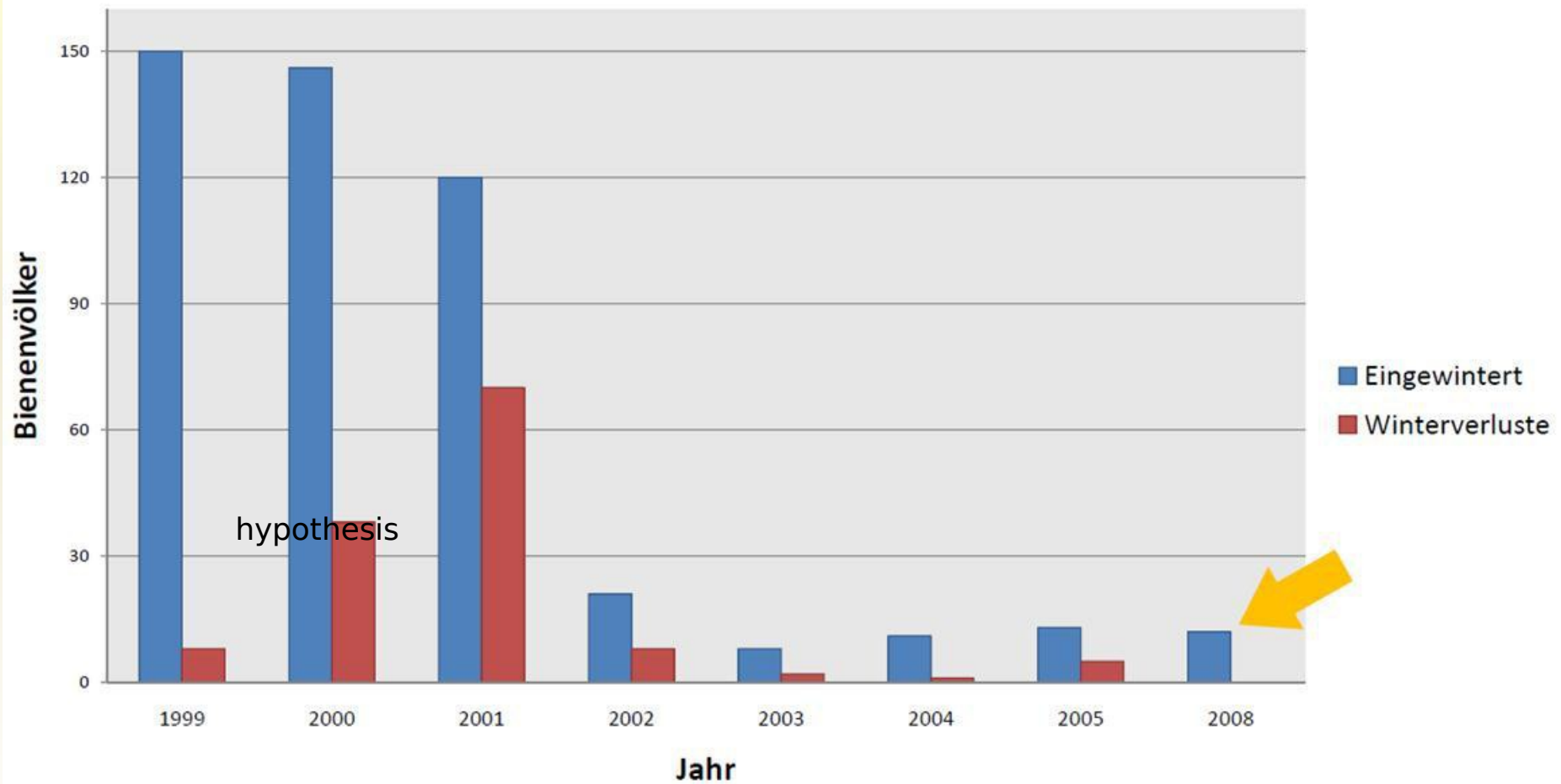


In another experiment, a nation has survived even 6 years!

The parasite would pursue a strategy abnormal when its host would wipe.



Host / parasite equilibrium!



hypothesis

- It is much more the (artificially high) virulence of v

possible and desirable!

we breeding a kind of super-Varroa, which did not exist there as in nature?

original situation

- Wild bee population 1978-2002 has remained remarkably stable numl

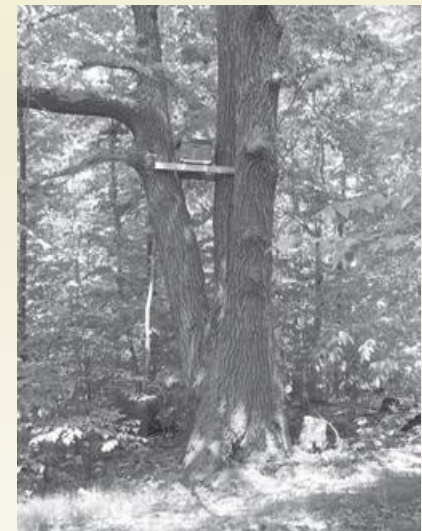
all peoples has spread.

try

- Are the bees from the Arnot Forest resistant Varroas?

result

• The colonies from the Arnot Forest go to civilization just as quickly to varroa, like all others.



Wild bee population Arnot Forest

we breeding a kind of super-Varroa, which did not exist there as in nature?

Honigbiene Apis Mellifera

Entwicklung vom Ei bis zur erwachsenen
Honigbiene mit Varroa-Milbe

Königin legt Eier.....

Arbeiterin Larve fütternd.....

Varroa Milbe wandert in Zelle mit
Larve ein.....

Larve wächst zu voller Grösse.....
Arbeiterin schließt Zelle.....

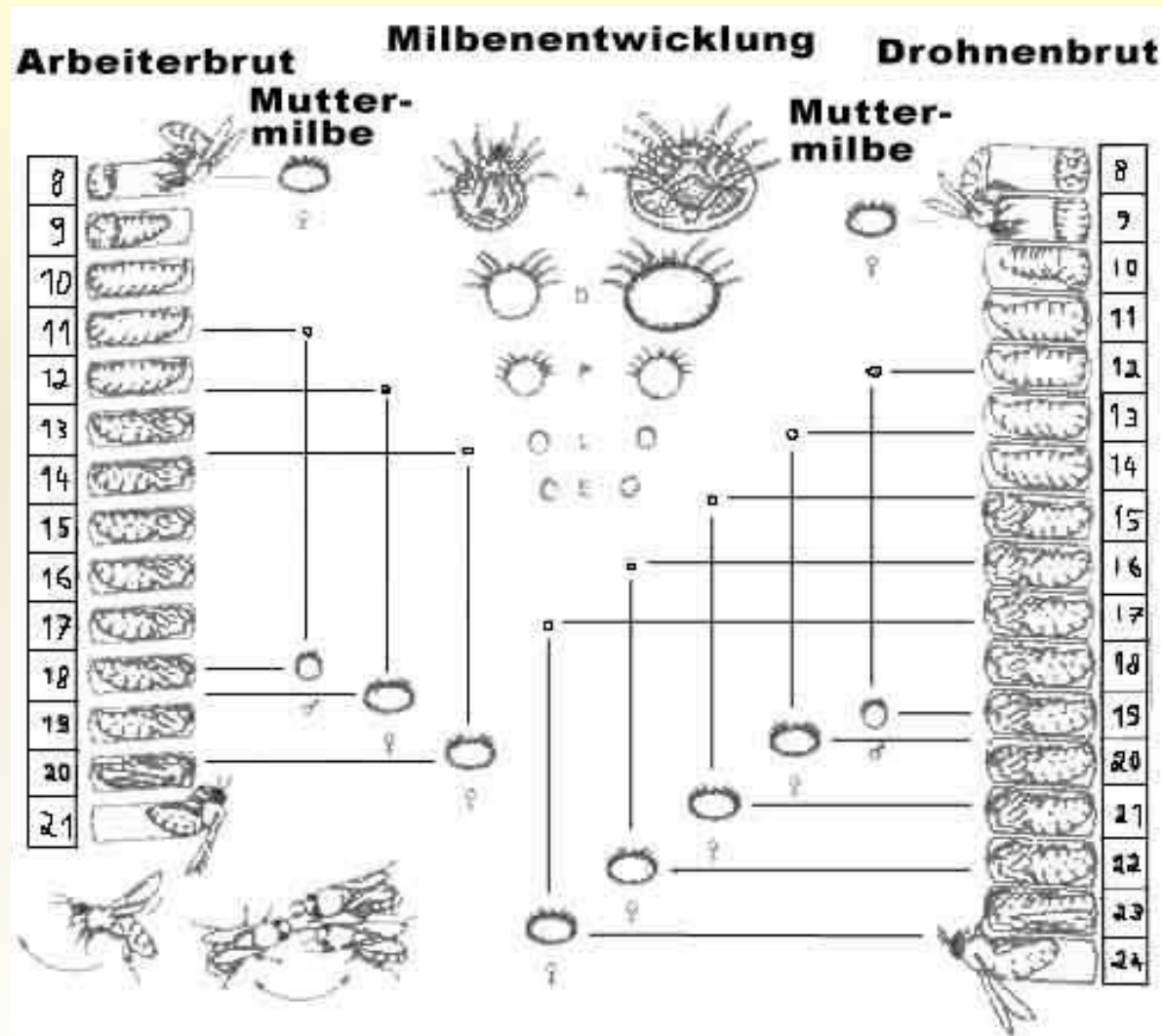
Vermehrung der Varroa-Milbe.....

Verpuppung.....

Junge Biene mit Varroa Milben
schläupft aus der Zelle mit erwachsenen
Varroa-Milben.....



open until 9 day the brood cell is still



found..!

Stay away from synthetic acaricides

- Initially good effect against Varroa mites
- Shortly after, already resistance to the treatment agent!
- residues in wax, pollen, honey, etc.
- The acaricides have insecticidal side effects ..
- And how the pesticide cocktails behave ..?

- More than 10 partly not even commercially available acaricides found in wax means walls ..!

- Biological cell death at the bee brood ..

Formic and oxalic acid have strong side effects

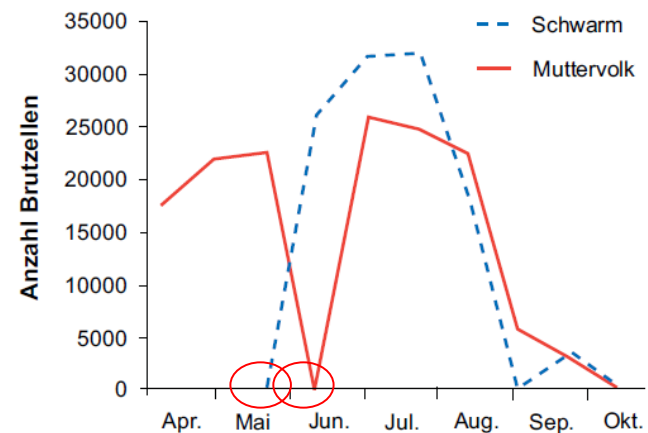
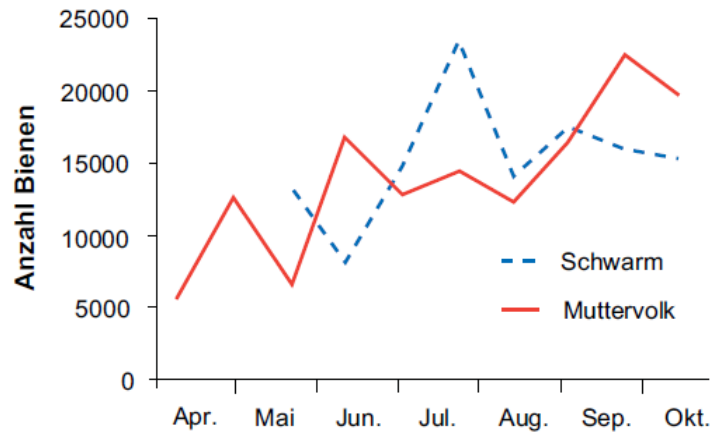
- formic acid goes through the wax lid and acts in the breeding
- oxalic acid acts only on the open brood and bees
- The effect of controlling Varroas is very strong. Resistances are hard

- Biological cell death at the bee brood ..

Diversification in varroa treatment **The optimal and sustainable Varroa control does not exist. Any known method produces a side effect in the one direction or another. We therefore recommend to diversify both the beekeeping, as well as the varroa treatment.**• Varroa treatment based on essential oils for **natural beekeeping**, The swarming serves as a base and thymol as a treatment during the breeding break: Alternatives VARROACIDE concept • For the

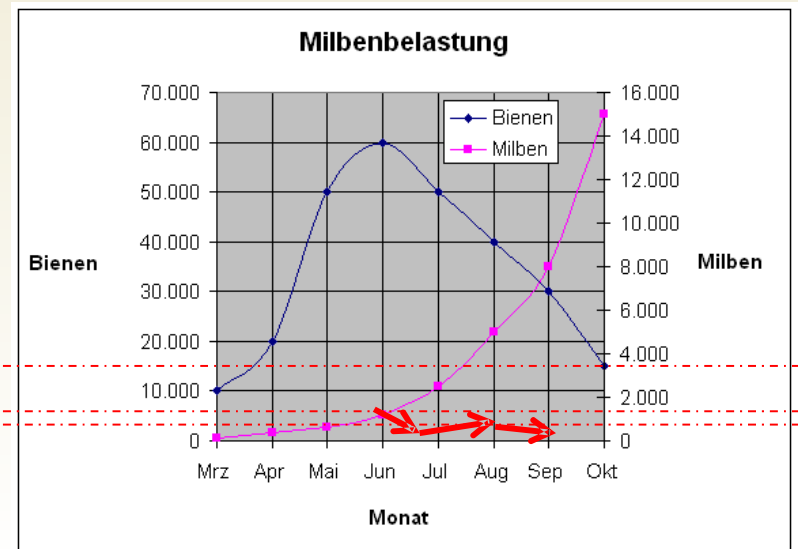
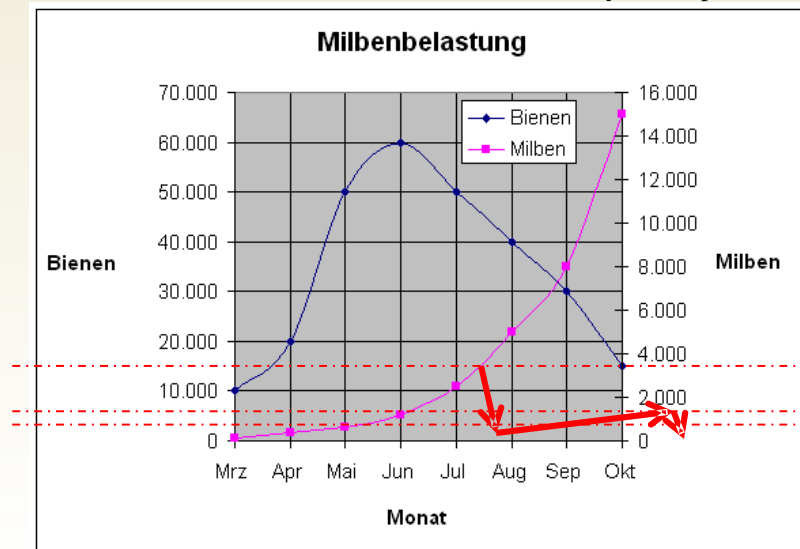
extensive Honey beekeeping **Where swarms of rare and delayed exit, the entire breeding withdrawal by Dr. Ralph Büchler. This is a method, which completely does without chemicals:**
Full brood removal

Treatment natural beekeeping



Lower thresholds and gentler treatment agent in the natural beekeeping thanks to breeding break after

Imdorf A. Ruoff K. Fluri P. : colony development in honey bees



Treatment natural beekeeping

As the varroa load is measured

procedure

- greased floor with Varroa mesh insert for about 3 days
 - Varroas count and divide by the number of days
- Compare with the following thresholds

note

- The mites dead case seems to be increased several days after the removal of
- Ants can extract the Varroas when not greased ground and cause inaccurate read

- Bees sample with powdered sugar wash

When will Varroas the hive dangerous?

Bernhard Heuvel: "In the spring the bees nest the Varroas it ..!"

Thresholds, where you can align roughly

- up in May at > 3 mites per day
- in July > 10 mites per day
- in September / October at > 2 mites per day

- Crippled wings at the hive entrance is a sign that the people are the next winter without intervention barely surviving

Benefit from the breeding break after swarms!

- Swarm (1 tile)
 - 3 days (after hatching is present, but before after 9 days the first cell has been capped)
- Who handled the swarm immediately, risking that he takes off again!
 - Mother People (1-1.5 platelets)
 - A few days after leaving swarm with thymol
- All nations end the season, depending on the infestation (1.5-2 platelets)
- 2-3 breeding cycles necessary (ie at least 6 weeks)
 - treatment completed before temperatures at night <10 degrees

- Be careful with hot August days with the dosage

Dosage of Thymovar

- The thymol in the hive air is highly dependent on dosage and outside temperatures!
- signs of over- and under-dosing
- A bee beard before the flight hole may indicate overdose
 - Do not smell it the thymol in the hive itself, it is well dosed too weak • A Thymolplättchen holds no
- See details below:
<http://www.freethebees.ch/bienenhaltung/alternative-varroa-behandlung>

- The thymol should be as balanced over the entire

- Evaluation of the diaper can help, but needs quite a lot of experience

Disease detection

General

- viruses, spores, parasites and bacteria are everywhere and can not be destroyed! But that does not long that the colony

must be sick!

- Early detection of brood diseases caused opening of the brood nest
- After opening, it may take several days (!) Take to the microclimate is produced in the hive again. • The
 - Risk management is necessary! □

By opening a disease can be triggered

□

By not opening a disease is at best a little later noticed

further remarks

- Observations at the hive entrance are important b

- Evaluation of the diaper can help, but needs quite a lot of experience

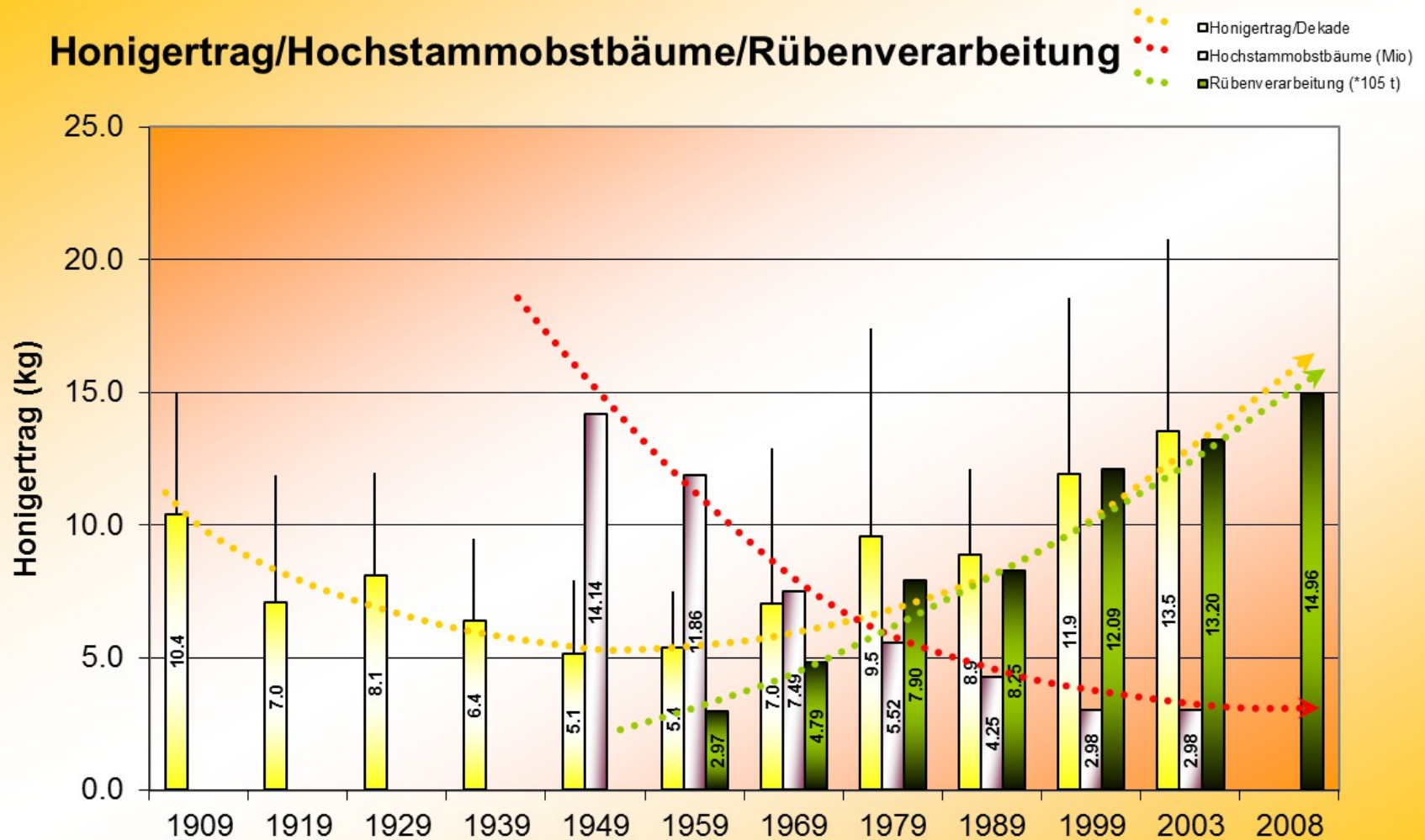
Observations on Flugloch



Feeding

Feeding

Honigertrag/Hochstammobstbäume/Rübenverarbeitung



As sugar production and honey production correlate

(Extremely different consumption, depending on the people!)

Livestock generally

- Ideally have a bee colony always 5-10kg honey on stock, which is difficult to achieve in practice today

- feeding overrides the natural selection, but significantly increases the survival rate natural held bees!

- feeding in winter is practically impossible. Fear in the spring because of lack of food is troublesome to feed the bees.

- A bee colony can be overfed!
- Too much food is stored
- Too little space for the brood nest
- Non-favorable trend of winter bees

- Or extremely later Swarm

- The bees show roughly how hungry they are. If little or no eaten, the Bidon can be removed

- A Warré-people need 12-15kg honey over winter (c



How is fed Warré

few days.

What is fed

- sugar feedings seem suboptimal impact on the bee. In summer, probably less dangerous than the Auffütterung for the winter.
 - most natural Füttermöglichkeit
 - present in honeycomb of stored honey of another people
- Below start and anritzen honeycomb
 - Top capped honeycomb put
 - Less natural options
 - Feedbee / solid food (rather than emergency stock to hedge)
 - syrup / liquid food
- Inverted (rather to Auffütterung end season)
- Not inverted (rather to stimulate the construction and brood rearing)
- honey syrup ferments within 2 to 3 days ..!
 - Refined sugar from the market
 - Private / Stranger honey
- Stranger honey is frowned upon because of the sour breeding bacteria beekeepers!
- bacterial contamination does not mean a long time that a strong people must be sick!

- Castaflor can be diluted to syrup, but is complex a

When fed

- Auffütterung end season
 - Until 20 September, the feeding should be completed sooner rather
 - Emergency feeding in spring
- Immediate measures if necessary in good weather with syrup
 - To protect the reserve with Feedbee
 - Between feeding costume gaps
- A people (also parent colony and swarm) normally survive without feeding the costume gap
 - The honey balance can also be significantly increased by an intermediate feeding
 - Lovely feedings
- The stimulus feedings in spring seem to achieve any sustainable value over the season

- feed them up until 15kg are in the box

Tips for small nations on only one frame ..

Get • Empty Honigrähmchen the conventional beekeepers with the Sw
installing • 7 empty boxes using the Framework Agreement parentheses

- feed them up until 15kg are in the box

Bee is less disturbing.

How do I know how much feed in reserve Stock is?

- Open either and look, with the disadvantage that the microclimate
- Warré says how to convert the honey surface in kg



Normaler Aufbau für Winter		kg
2x Zarge	Original mit Träger	6.5
Boden		2
Kissen gefüllt mit Sägemehl		3
Dach		6.75
Bienen		3
Wachs		2
Pollen		1
Total		24.25
mit Futter		15
Total mit Futter		39.25

Bee is less disturbing.

- In poor costume carnage !!!
Avoid at all!
- Feedings outside the bee box

- In poor costume carnage !!!

- Applies mainly of inadequate cohesive nations

robbery

- Feedings in poor garb conditions can lead to robbery!
- In particular, differences between strong and weak nations pose a potential risk for
- The inverted Bidon top of the hive is less dangerous than the feeding with the open
- Honey is more dangerous than sugar
- Possibly narrow entrance hole
 - Possibly Supplementary feeding small amounts in bad weather and / or at night
 - robbery must be put into perspective



Is that .. still possible today? Nobody

Nicol Jacobus, beekeepers
in 1568

Klotz prey

- 3 to 5 years national development
- Only afterwards annual harvest!

Natural cycles

- More than a year!
- As a fruit tree that is planted ..



10kg honey harvest:

Increase the risk of disease by 20%

Effect of 10kg honey harvest ..

1 bee colony collects / consumed per year

- 120kg nectar
- 25l water
- 20kg pollen
- 100g resin

A crop of 10kg of honey means:

- + 25kg nectar
- + 4 to 10 additional honeycomb

- + 4kg pollen

Tracht numbers of Prof. Dr. T. Seeley, morbidity estimated by Bernhard Heuvel

The bee only achieved in 19% of all days a positive balance. **Without unnatural intervention**

- + 30,000 bees



Increase the risk of disease by 20%

honey harvest

When

- In the swarm beekeeping after swarming
- Little bees on honeycomb
- Otherwise honey back eaten until the end of June from the parent colony
- Stabilbauwaben cut out
- Presses with cider press

hint



(Sabi (e) ne) Bernhard Heuvel and Phil Chandler No more ..! According to
www.immenfreunde.de

- 1) honeycomb are pressed, the honey from flowing and is bottled.
- 2) The resulting press cake contains a good proportion of honey.
- 3) The press cake is boiled in a large stainless steel bowl.
- 4) Allow to cool and removed the top layer of wax and, after further clarification used for candle making.
- 5) The below water is treated and then placed in a wine balloon, wherein it is used for Met / H



**Legal
aspects and ins**

beekeeping training.

Legal conditions **The Animal Diseases Act (TSG) and the Animal Disease Regulation committed beekeepers, our** to report bee colonies and to insinuate the TSG

, Beekeepers have a duty to the animals (bees) to wait properly, to maintain and to make the arrangements for the infestation listed by xylem and Varroa mites as "to be monitored" epidemics. Highly contagious and eradicated

Moving bees

- bee shipments must be reported usually the bee inspector
- Of Immolation for transport bans are in spring often posted
 - Partially by three days basement prison bypassed!

Inspection Warré in Stabilbau





**differences to
Warré ..**

What has changed since the time of Warré

- Other conditions Tracht
 - Other bee behavior
 - pesticides
 - Varroa
 - Possibly more pollution
- For these reasons, also WARRES "Méthode Héroïque" no longer recommended! It is neither productive nor of course and for the bee an ordeal.
- Is the Warré with 300x300mm Interior If most by today's standards a bit small ..? Could the bee in the swarm beekeeping with a bigger booty a little more

Honey store?

Where Warré was possibly wrong ..?

- What are the beehives be close to the ground? A bee chooses a nesting site in the highest!
- Changing from hot and Kaltbau seems highly unnatural. Why does this so Warré practiced?
- All the complicated methods of spin-off formation may have been at times WARRES still appropriate today but not very sustainable.

various



Beneficial or pests ..?

- wasps seem to be a problem for healthy bee colonies and need not be considered further
- ants are not a problem for the bee colony and must not be prevented / controlled.
- "Ohrmüggler" nest like an in Warré Pillow. All the better for our fruit trees and without any problems for the bees!
- Clean wax moths old and consumed breeding nests ..

Further information



reading

Books / concepts

- Warré Original
- The Swiss Bee Book (formerly the Swiss Bienenvater)
- Bees democracy, TD Seeley
- At the entrance hole, H. Storch
- Specifications from FreeTheBees
- Local adaptations for beekeeping, Bernhard Heuvel,
<http://immenfreunde.de/WarreMod.pdf>
- and much more

Scientific studies

- www.apidologie.org

Internet

- documentaries Jan Michael & Olivier Duprex:

- construction
- operation
- harvest
- treatment, etc.
- <http://www.youtube.com/user/ruchebio>

- Usefull links

- <http://warre.biobees.com/>David Heaf
- www.immenfreunde.de, Bernhard Heuvel
- and much more



graduation

Check the learning objectives

Course content according to tender

- Biology And life of bees: In nature and in the beehive
- The Different methods and beehives and their advantages and disadvantages
- Imker-Year expiration: How do I get bee? How do I get a beehive? Where do I go to the box? As one lodges a bee?
- What Needs to be monitored, when action must be taken? How to deal with Varroas? How and when should I feed? How and when can I harvest? What material do I need minimal?
- Practical Exercises using the Warré bees box
- Notwendige Adjustments to the original idea for Warré a success

Learning objectives according to tender

- My Own beekeeper objectives are defined and I know what material and with what beekeepers method I can achieve this
- I am able to enter their own bees in the apiary in May
- I Can arrange reviews of other beekeepers and this countered with arguments

Feedback Form

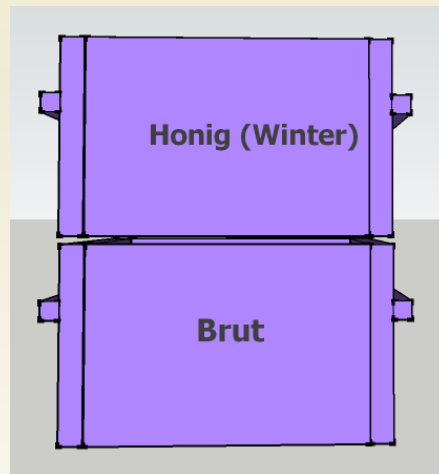




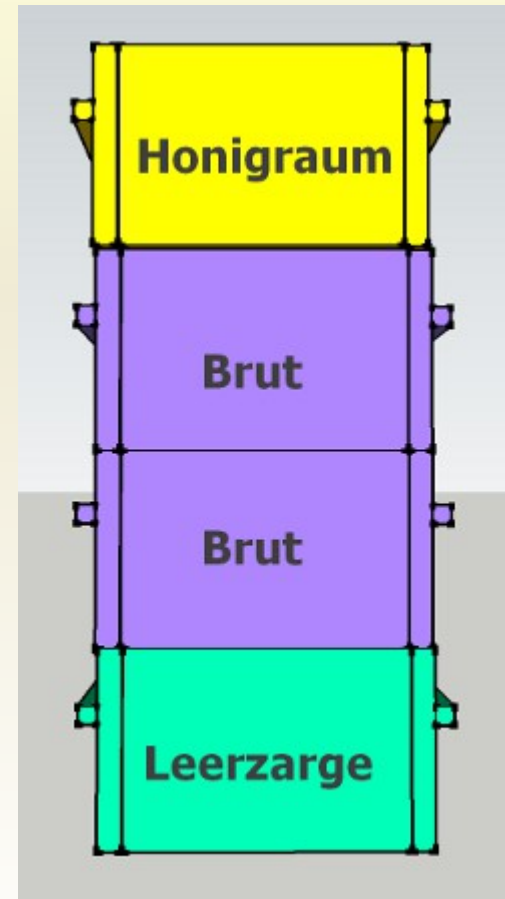
backup films

Harvesting, not supplementation, multiply

winterkill

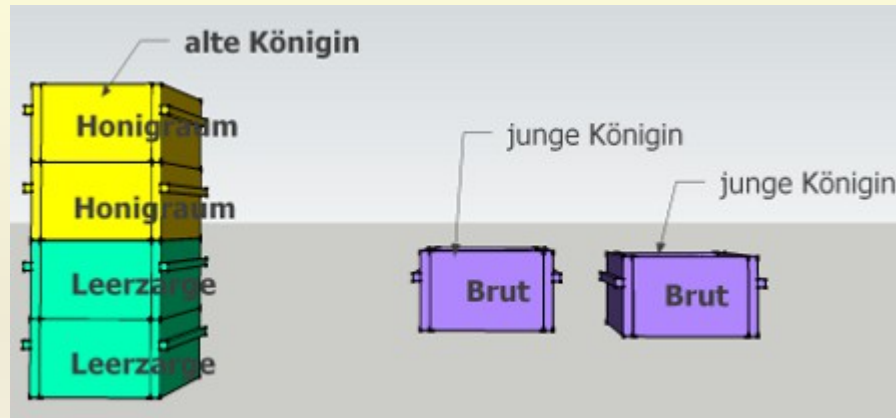


costume

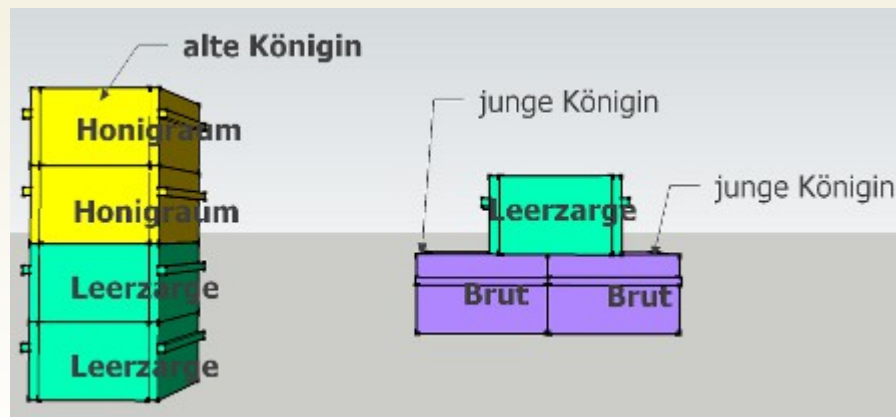


Vorschwarm old place with Leerzargen. Brutzargen as an offshoot

- Option 1: Two separate offshoot

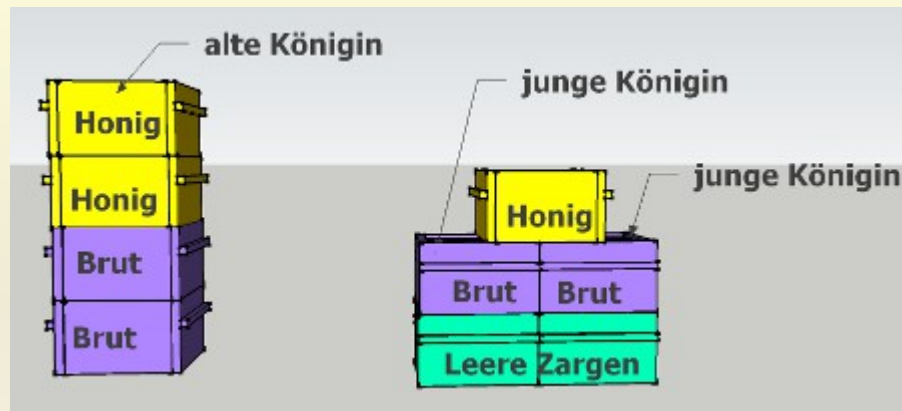


- Option 2: twin operation Abelger

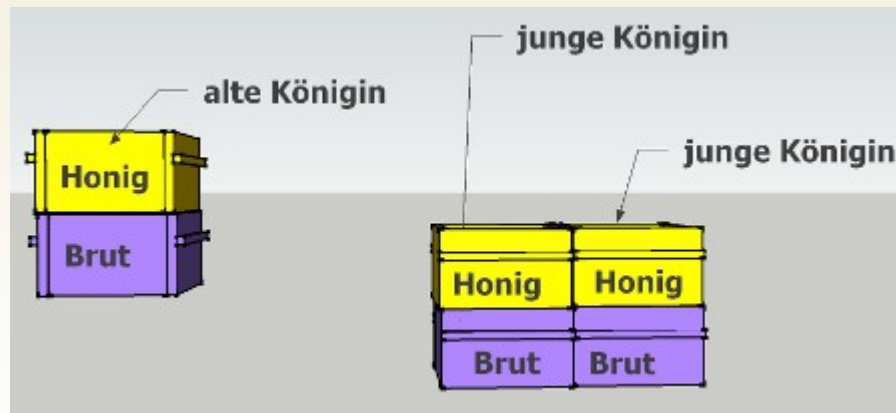


Expand, Harvesting, feed them up

- Expand and harvesting



- After feed them up



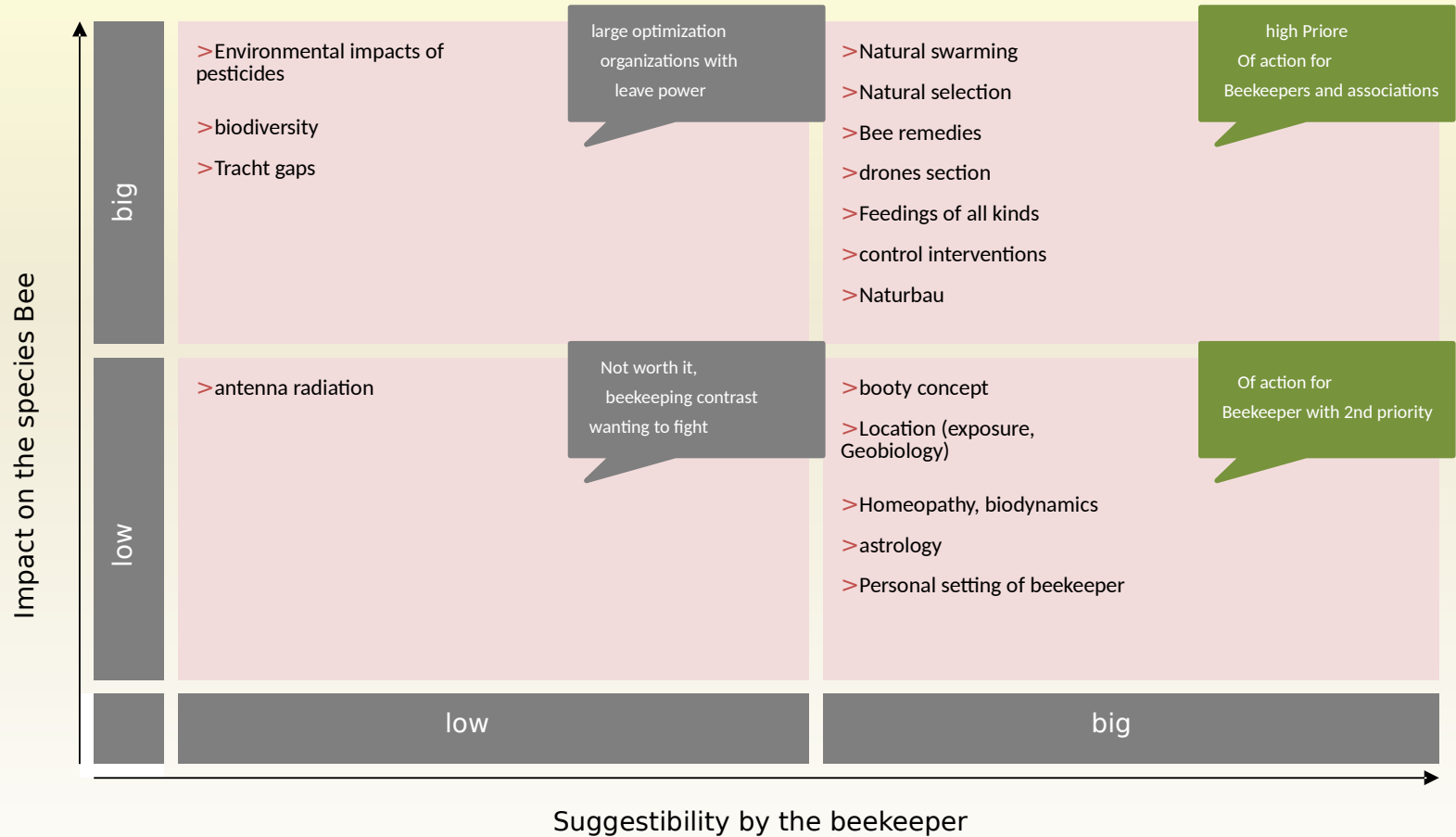
FreeTheBees

- Association founded in February 2013. Non-profit and tax-exempt organization
- About 50 allies, including 6 board members, 25 active members and several patrons and volunteer supporters Scientific Advisory Board with 4 professional biologists
- Board
 - André Wermelinger, President
 - Hans Studerus, Vice-President
 - Björn Stoffer, actuary
 - Daniel Boschung, technical manager
 - Thomas Fabian, treasurer
 - *Chairman of the Scientific Advisory Board, nn*
- Fully independent financially, politically, nationally, religiously, etc.

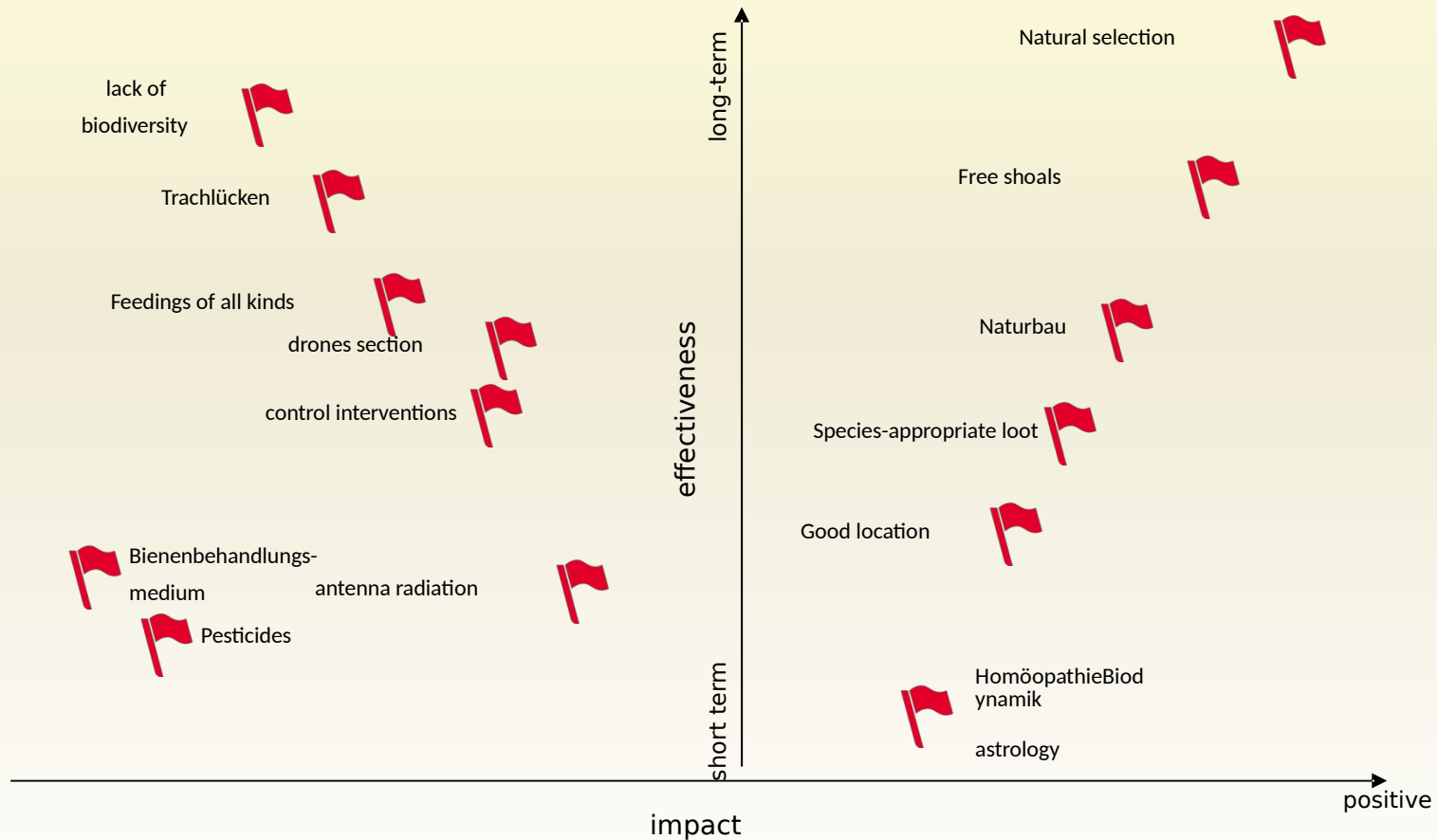
Our goals

- optimization of economy and ecology
 - **Long-term maximization** income and ensure the sustainable production
- The bee should be able to live independently again
 - Improve the environmental conditions for bees
 - Protection and improvement of wild bee colonies □ Reactivating the natural evolution!
- The bee is to be kept appropriate to the species
 - Honey is sustainable (extensive) produced
 - Using a portion (eg 20%) is close to nature geimkert

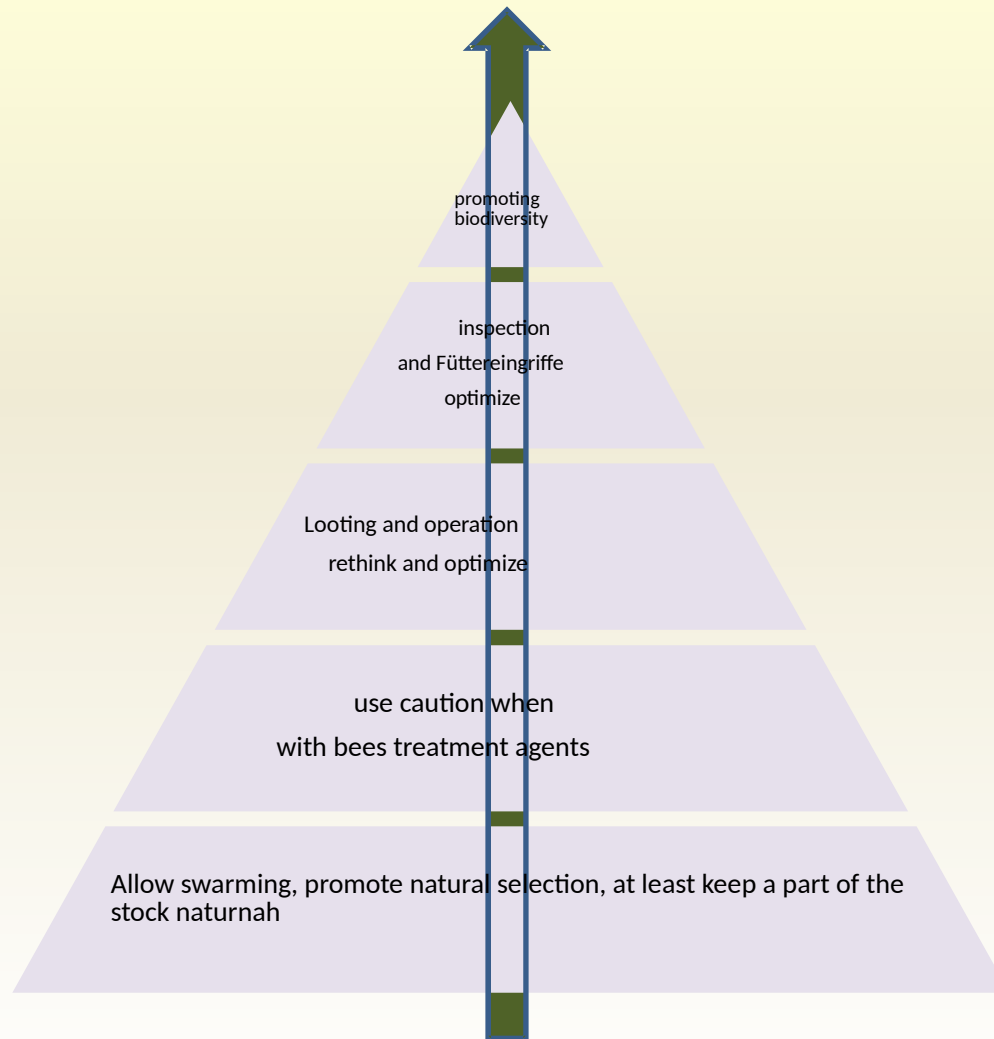
Beeinflussbarkeits- and impact matrix



Long-term and short-term effects of influencing factors

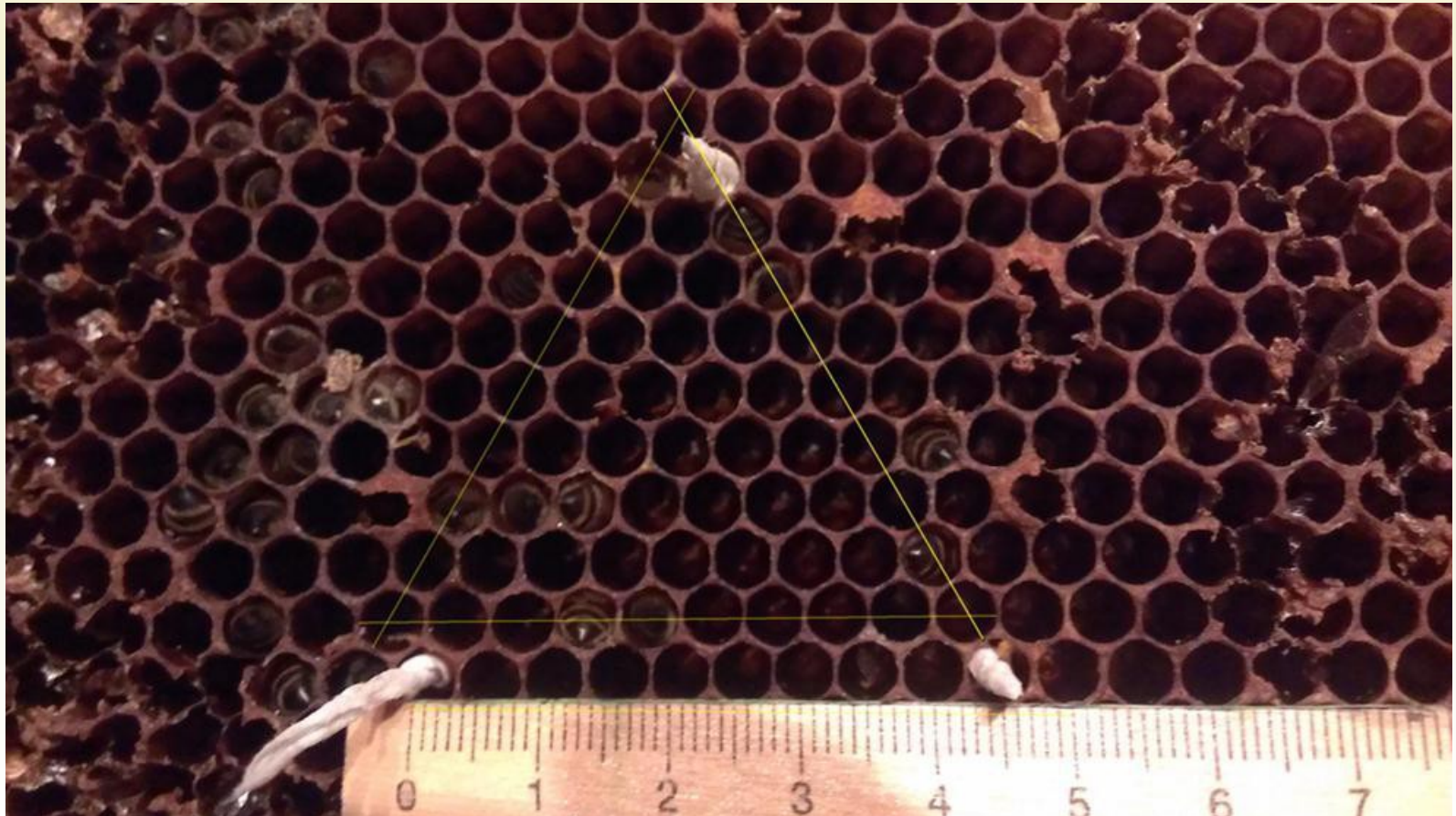


Recommendation for action for beekeepers



Small cells ..? No, Naturbau!

- 4.8mm to 5.4mm on the same comb in Naturbau!



The Zeidler tradition



Forest beekeeping in living trees

- Beekeepers crafts from the Middle Ages
- With us earlier than "**Beyeler**" Known in Germany "**Beutner**" And "**Zeidler**"»
- Zeidler had high priority, because sugar was missing
- Beekeepers allowed with crossbow in the woods in order to defend its trees can.
- Who was felling a Zeidlerbaum had to reckon with the death penalty!
- grandfather chose the tree in which his great-grandson imkerte years later!

COURSE

- late 19th century largely disappeared from Europe
- Get in Shulgan-Tash Zapovednik (Nature Reserve) (Southern Ural. Russia, Bashkirs)
- From brought Russia back to Poland
(WWF project financing for Development and Cooperation SDC)
- Project: Dr. Hartmut Jungius and Dr. Przemysław (Przemek) Nawrocki

Today in Poland

- Several practicing Zeidler (beekeeper, park rangers, etc.)
- Several distributed areas Zeidlerbäumen
- 50% spontaneous Schwarmmeinzüge for a year!
- Interdisciplinary collaboration: Forestry, WWF, Birds, beekeeper, nature parks, etc.



More Photo Material

- Photos from the Urals by Eric Tournet, "The Bee

Fotographer »

[http://www.thehoneygatherers.com/
html/photolibrary1](http://www.thehoneygatherers.com/html/photolibrary1)

[6.html](#)

- Link to our Polish Zeidlerkollegen

<http://bartnictwo.m-sto.org/>



Why do we want to introduce the Zeidlerei again?

- Of course, Ster all conceivable beehives
(Fixed volume, Naturbau, optimal climate, etc.)
- Network *naturnah held* build bees
(No honey spaces and therefore free flocks)
- Beekeepers awareness of the differences between the honey bee and *naturnah held bees* sharpen
- Raising awareness of the importance of habitat trees
(An old oak provides 300-500 species habitat!)
- New interdisciplinary cooperation models
(Forestry, bird, animal welfare, conservation, beekeeping organizations, nature parks, etc.)
- attraction and awareness raising for the general public
(Information boards in the forest near Zeidler-trees)
- conservation of cultural heritage and an ancient craft
(Eg ballenberg)



Our Zeidlerei conforms to the Ordinance on epizootic diseases (OFE)

Beekeeping is under the Animal Diseases Act (TSG) and the Ordinance on epizootic diseases (OFE). The learned and practiced by us Zeidlerei respects all conditions:

- All Zeidlerbäume subject to the reporting obligation beekeeping
- Brut control due to removable Mittelwabe (4 breeding areas in the center of the brood nest completely visible)
- Varroa infestation measurements (eg natural mites dead case)
- Varroa treatment possible with all authorized by Swissmedic treatment agents.
- Feeding possible by unobstructed cavity

Slot for egg
Thymovar platelets

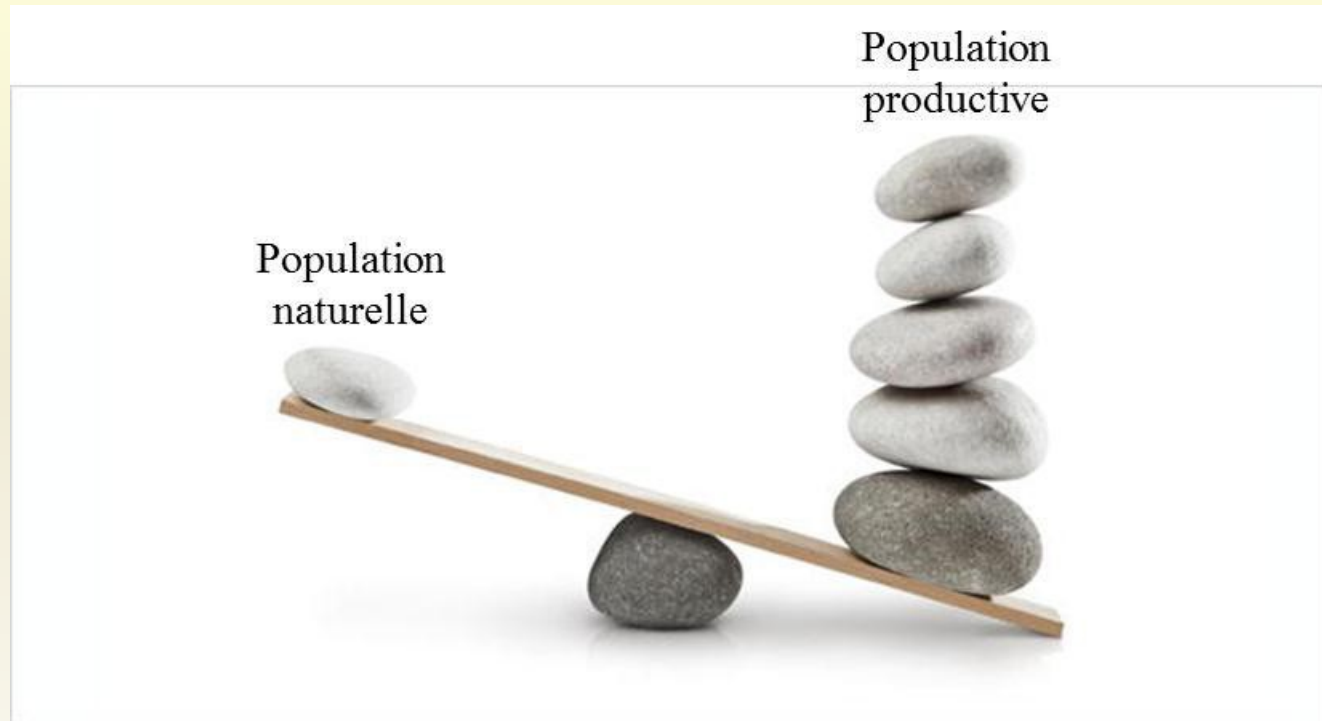


7.5mm-slot, so that the

frames mobil remains.



"Right or wrong"? The truth lies in the balance!



Record, which we should consider:

We have turned the natural selection.

The bee is unable to adapt to environmental changes themselves.

Géobiologie: L'influence du réseau cosmo-telluric



zone neutre

(Hartmann, eau, faille)

zone perturbé

(Croisements Hartmann)

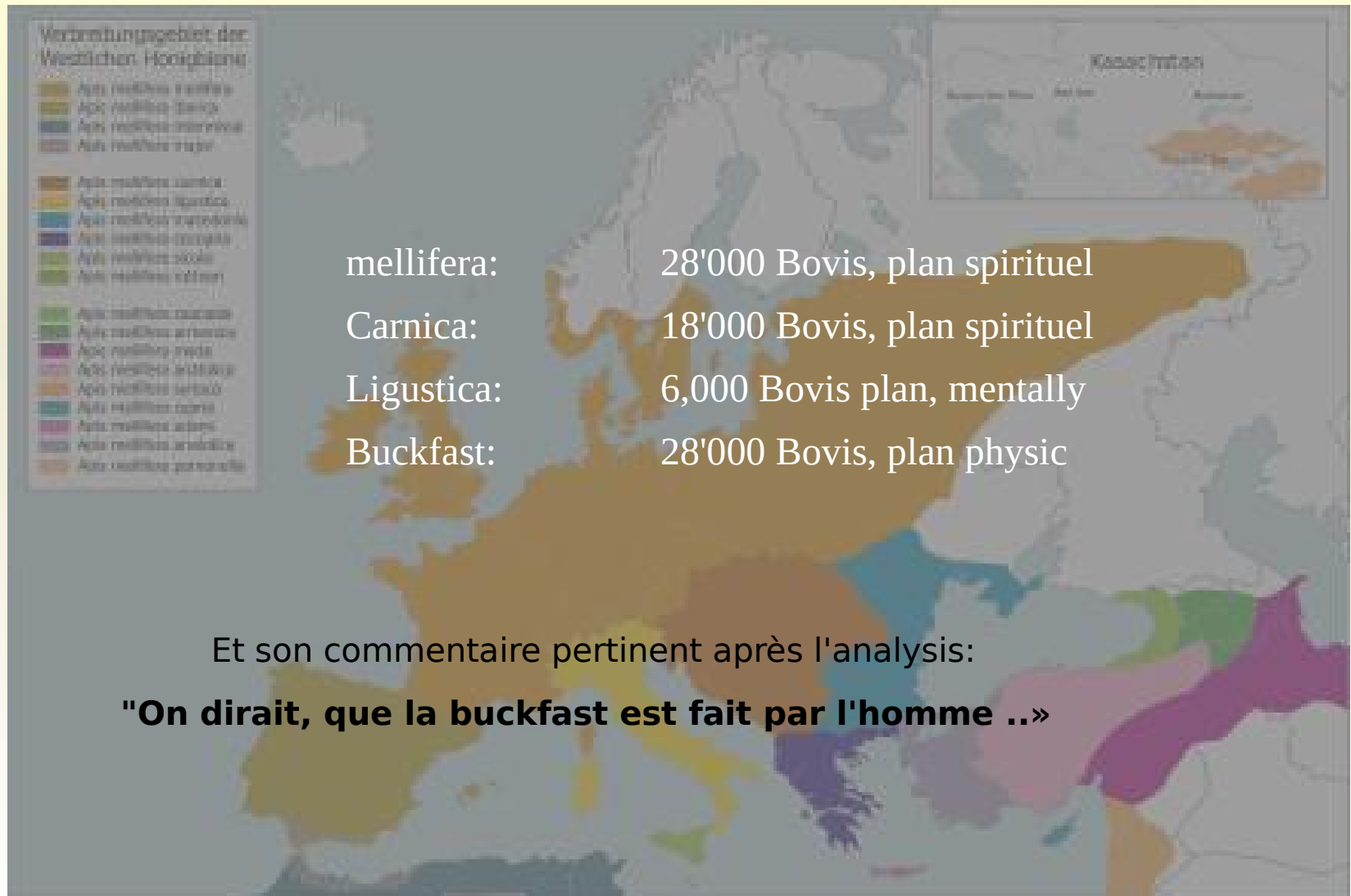
1 ruche perturbé: Pauvre développement, mais très peu de varroas! On dit que le réseau Hartmann est porteur de l'électromagnétisme ..

Sont nos abeilles vraiment of "chercheurs d'onde" ..?

Est-ce vraie pour le premier "hold" ou bien aussi pour le site final ..?

Et si oui, est-ce une vraie aussi pour zone électromagnétique ..?

Races d'abeilles mellifères Analysis par un géobiologue sans connaissance de l'abeille ..



credentials

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. 2 **De Gélieu, J.** *Instruction pour les habitants de la campagne (Comté de Neuchâtel).* 1770th

. 3 **Ramdohr, KA** *The most profitable and easiest way of beekeeping.* 1833rd

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. 5 **Georgy, A.** *Il n'y a pas que le coucou qui vole le nid des autres !!!* sl: Revue Suisse d'apiculture, n 11-12 / 2012, 2012 Design.

. 6 **Fries, I., Imdorf A., P. Rosenkranz** *Survival of mite infested (Varroa destructor) honey bee (Apis mellifera) colonies in a Nordic climate.* Of 2005.

. 7 **Thomas D. Seeley.** *Honey bees of the Arnot Forest: a population of feral colonies persisting with Varroa destructor in the northeastern United States.* sl: Apidologie., 2006

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. 9 **Fries I., Hansen H., Imdorf A., P. Rosenkranz** *Swarming in honey bees (Apis mellifera) and Varroa destructor population development in Sweden.* sl: Apidologie 34, 564-570., 2003

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12th **Ewald, P.** *Host parasite relations, vectores, and the evolution of disease severity, Annu. Rev. Ecol. Syst.* 14, 465-485. 1983rd

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Team German Swiss and Romansh bees friends VDRB. [Online] http://www.vdrb.ch/uploads/media/Statuten_apisuisse_07.10.09.pdf. **27th** Seeley, T. Life History Strategie

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