

# weeds - „Unkräuter“?



## „Unkräuter“ / weeds

- definition
- evolution
- why bad? | why good?
- in my garden



## What makes a plant called a weed („Unkraut“)?

- being in competition with cultivated plants and minimizing their harvest
- hindering the cultivation process of land
- disturbing the aesthetic sensation of a human
- being a toxic plant in a harvest
- plants that were not cultivated on purpose at a field



the forage plant „dandelion“ becomes a weed on a meadow if it propagates massively and suppresses other cultivated grass

„UN-kraut“ (engl. weed)

unwichtig      unerwünscht  
ungewollt  
ungeliebt  
Unmens  
unnütz      ungerecht....

--> subjective and judging term



Would we still call a plant „weed“ or „Unkraut“ if we found out more about its beauty and benefits?



- some plant species ( today called „weeds“) exist since the Ice Age



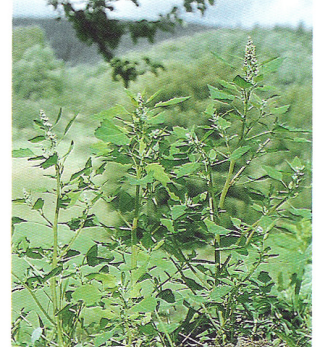
Kornblume  
/cornflower



Brennnessel  
/stinging nettle



Distel  
/ thistle



Weißer Gänsefuß  
/ goose foot

- the weed control problem exists since the agriculture



weed control with the hoe in the  
13th century



weed control with the hoe in the  
20th century





extensive chemical weed control in gardens and fields in the 20th century

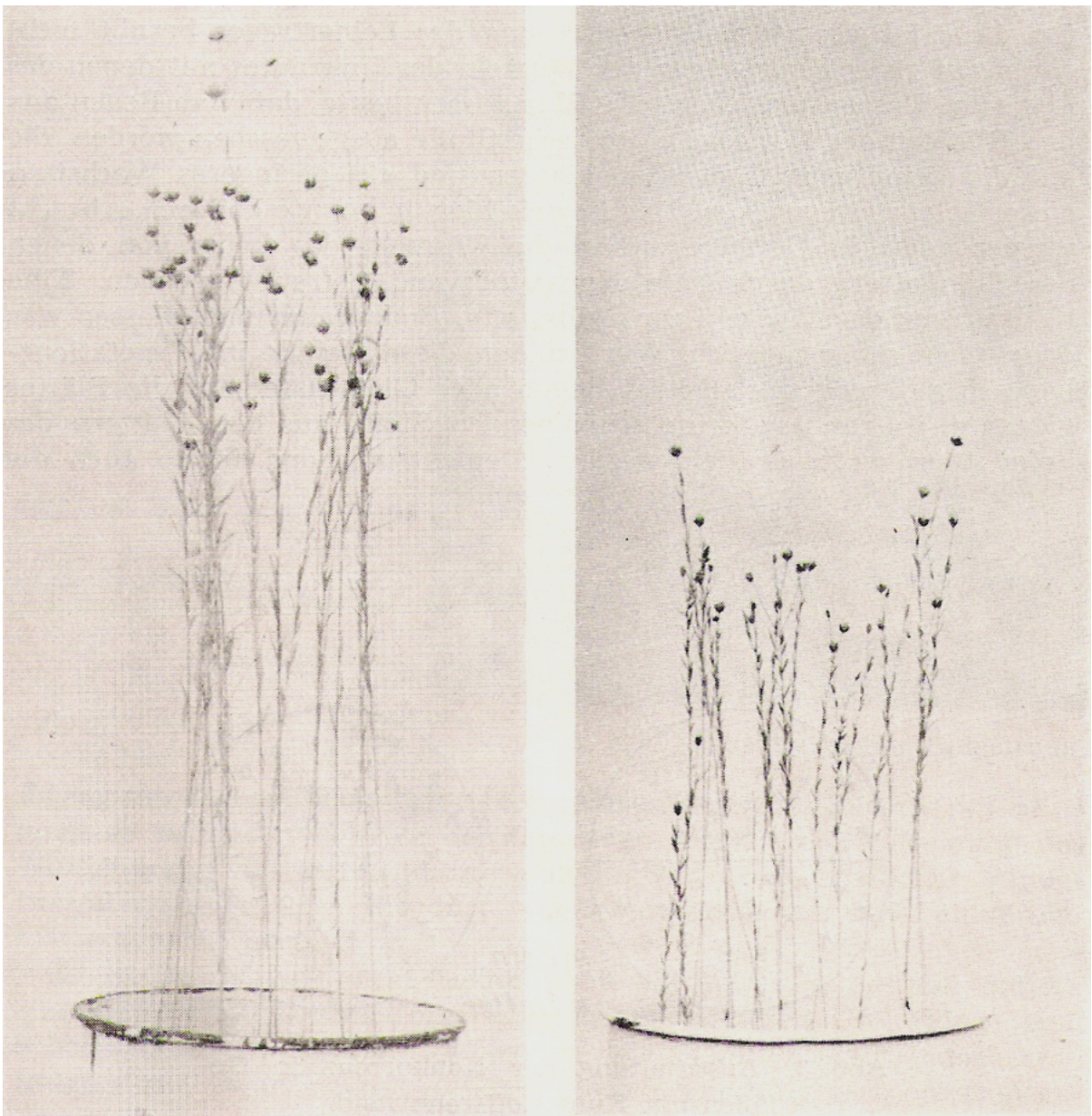


many shrubberies and bisks get removed from fields due to the change in agriculture and use of mashines



## why are weeds bad?

- weeds have often a much higher consumption of water and nutrients
- weeds often start to grow earlier and faster than cultivated plants
- some weeds release inhibitor substances through their roots
- > damage other plants
- some weeds act as alternate hosts for parasitary plant diseases



left: 20 flax plants in a test pot.

right: 20 flax plants that grew next to false flax. Strong growing inhibitors. (the false flax plants were removed before the picture)



## why are weeds good?

- they loosen up the soil (some have very long and strong roots)
- specific weeds are important for specific insect species as food
- they are part of our complex eco system, our eco systems depends on them
- they protect the soils from erosion and increase its humus content
- many can be used as foods or natural medicines
- can be used as natural fertilizer or even pest control in the agriculture
- can give you information about the soil they are growing on



erosion in a corn field



butterfly caterpillars („Kleiner Fuchs“) need stinging nettle as food



my garden in Ehringsdorf



march 21



mai 21



june 21





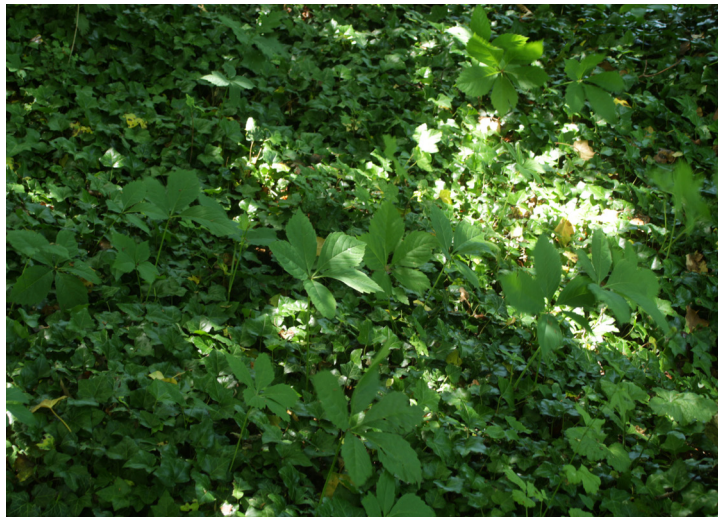
**high weed control**

(eggplant and tomatoe plants were plantet  
and the earth covered with hay)



**low weed control**

(a lawn mostly let to itself was mowed)



**no weed control**

(different plants naturally cover the earth)





weeds take over a path way  
in my garden



wild plants take over human  
infrastructure next to my garden



I removed weeds around one beet root  
plant to give it more light and nutritions

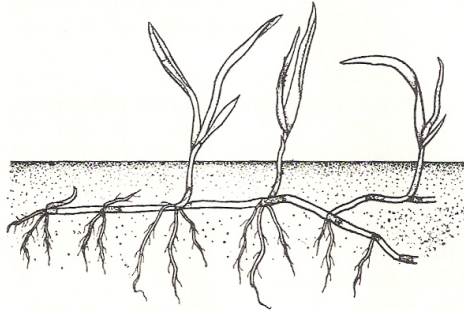
How much space can i allow the weeds/the nature in my garden?

With how many weeds my garden is still beautiful or practical?



## Quecke (Couch grass):

- belongs to the family of the sweet grasses
- propagate vegetative (through rhizomes) and through seeds
- exist in europe since humans started to settle down and grow crops
- was back then processed to food together with the crops
- exist in europe since humans started to settle down and grow crops
- is one of the most feared weeds (rhizomes can leave out at every knot)
- > f.e. is classed as an invasive weed in the US
- roots release inhibitor substances for other plants





BUT:

- sweet-tasting root (should taste a little like liquorice)
- is an old medical plant
- has been used since Roman times as a diuretic and to expel gravel in the bladder
- roots have also been used as a coffee substitute when roasted or dried and grounded as a flour
- one study found that it had sedative properties when given to rats and mice (by Newell.et.a., 1996)

“the most medicinal of all the quick grasses. The roots of it act powerfully by urine; they should be dried and powdered, for the decoction by water is too strong for tender stomachs, therefore should be sparingly used when given that way to children to destroy the worms. The way of use is to bruise the roots, and having well boiled them in white wine, drink the decoction; it is opening, not purging, very safe: it is a remedy against all diseases coming of stopping, and such are half those that are incident to the body of man; and although a gardener be of another opinion, yet a physician holds half an acre of them to be worth five acres of carrots twice told over.” (Culpeper, 17th century)



## Japanischer Flügelknöterich (Japanese knotweed):

- belongs to the Buckwheat family
- this neophyt was introduced from Asia to Europe and the USA in the 19th century as an ornamental plant and forage crop
- *Reynoutria japonica* is nowadays considered the worst weed in Europe and belongs to the most 10 invasive plants on the planet (it is not getting eaten here)
- it has caused serious damage to the natural and built environment
- propagates vegetative (through rhizomes) and through seeds
- it can leave out again from tiny root fragments (of only 0,06 g)
- roots release inhibitor substances for other plants
- it gets 3-4 meters high
- can grow up to 30 cm a day





BUT:

- it is eatable and tastes similar to rhubarb, green apples or sugar cane
- it is a major source of resveratrol and Vitamin C
- is an old medical plant with lots of modern scientific research going on
- the roots are used medicinally against skin problems