The background of the slide is a photograph of sea buckthorn branches. The branches are covered in clusters of small, round, bright orange berries. The leaves are green and elongated. The sky is a clear, bright blue. The text is overlaid on a white rectangular box with a yellow border.

# **Experiences about sea buckthorn cultivation and harvesting in Latvia**

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**EuroWorkS2014**

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## History

Roadside plantings, recultivation

Trials with *H.rhamnoides ssp. mongolica*

Since 1984

*H.rhamnoides ssp. mongolica* x (*H.rhamnoides ssp. rhamnoides* + *H. rhamnoides ssp. fluviatilis*)

Area of plantations 350 ha, average yield 4 t/ha

Demand exceeds supply, price increases

New trend of logistics

## **Growing conditions in Latvia**

Active growing season 180 – 200 days

Sum of temperatures above zero - about 2000<sup>0</sup> C

Changing winter temperatures, especially along the seaside

Continental SBT varieties are not winterhardy

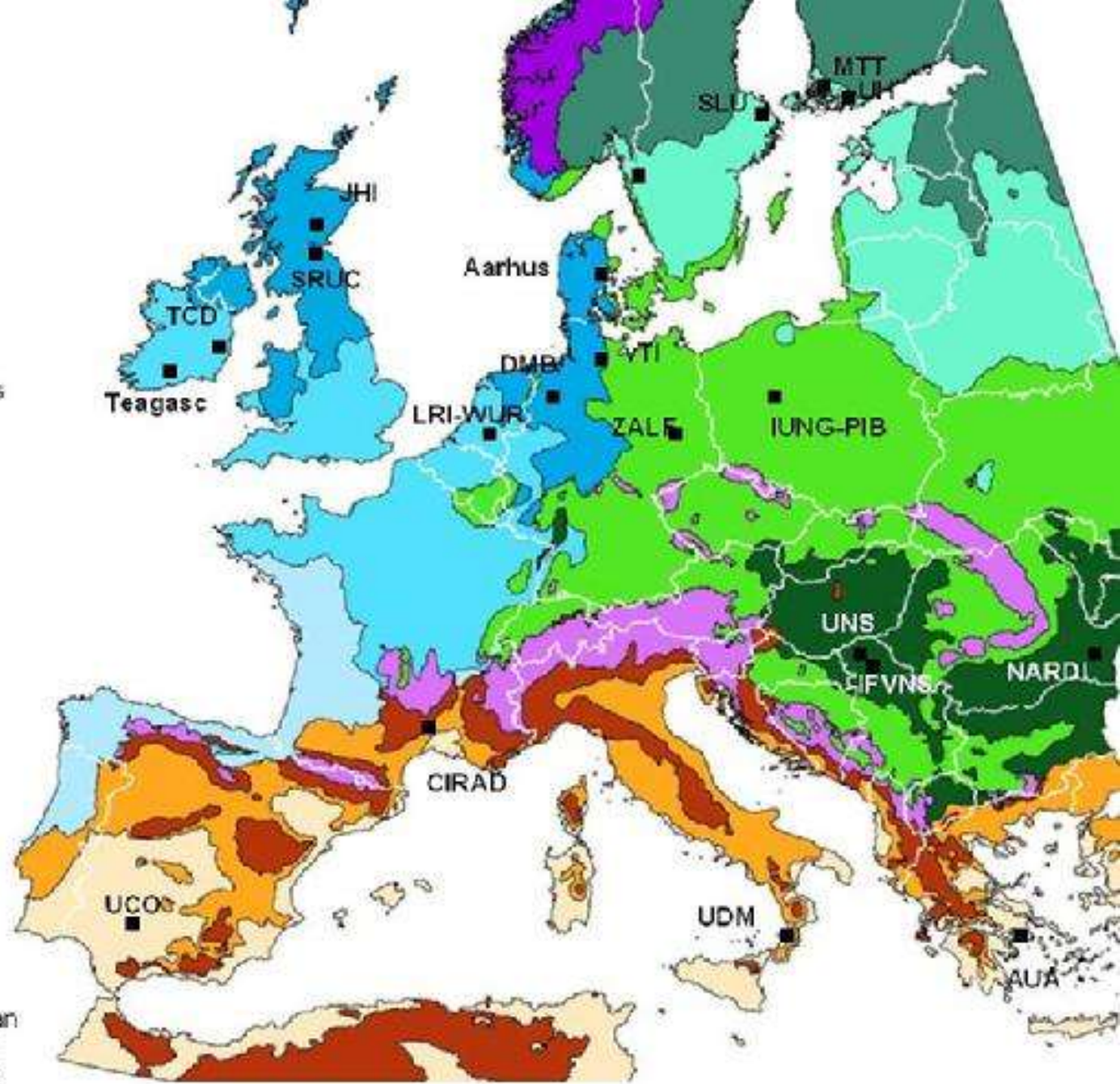
## **Environmental groups of SBT varieties**

- A. Selections of native SBT in Germany (Sirola, Leikora, Hergo, Askola, Habego, Dorana, Frugana, Orange Energy, Pollmix etc).
- B. Selections of native SBT in Finland (Tytti, Terhi, Tarmo etc).
- C. Crossings between continental Russian varieties with native SBT from southern coast of Baltic sea (Botanicheskaya Ljubitel'skaya, Prozrachnaya, Podarok Sadu, Marija, Tatjana, Lord etc).
- D. Crossings between continental Russian varieties with native SBT from northern coast of Baltic sea (successful trials since 2004, no commercial plantations yet).



## Environmental Zone

- ALN - Alpine North
- BOR - Boreal
- NEM - Nemoral
- ATN - Atlantic North
- ALS - Alpine South
- CON - Continental
- ATC - Atlantic Central
- PAN - Pannonian
- LUS - Lusitanian
- ANA - Anatolian
- MDM - Mediteranean Mountains
- MDN - Mediteranean North
- MDS - Mediteranean South



Map based on that provided in:  
Metzger M.J., Bunce R.G.H, Jongman  
R.H.G, Mucher C.A. & Watkins J.W  
(2005). A climatic stratification of the  
environment of Europe. *Global Ecology  
and Biogeography* 14, 549-563.

## Choice of varieties

C and D groups, because of:

- Large and juicy fruits. Outcome of juice is 85%, instead of 55% from A and B groups
- Less stellate hairs
- Drinks require less sweeteners









## **Young plants**

Bare root plants more popular than potted ones

Overwinter in nursery, planted out in spring

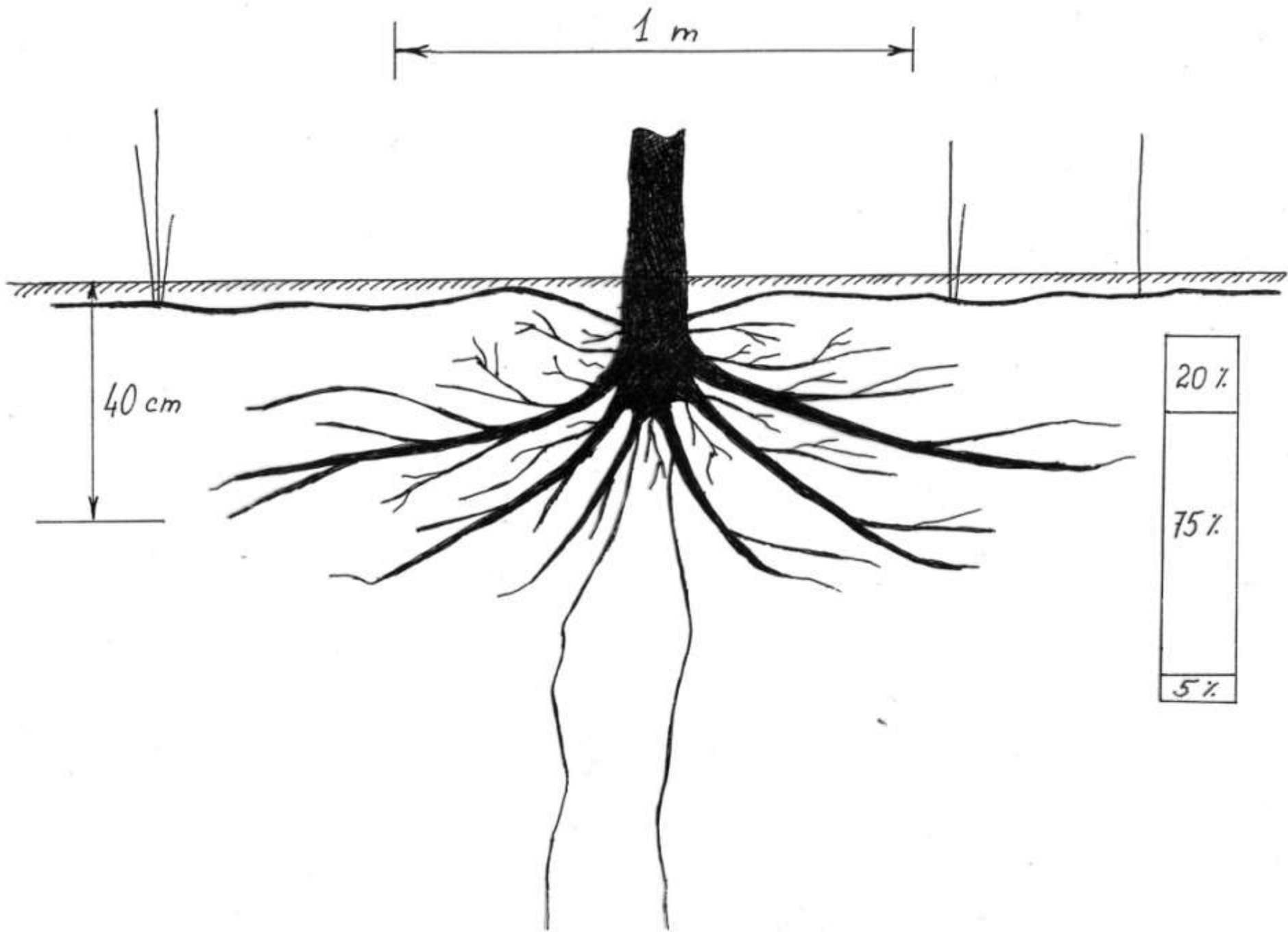
Root suckers are used for replacing of dead plants

















# Watering

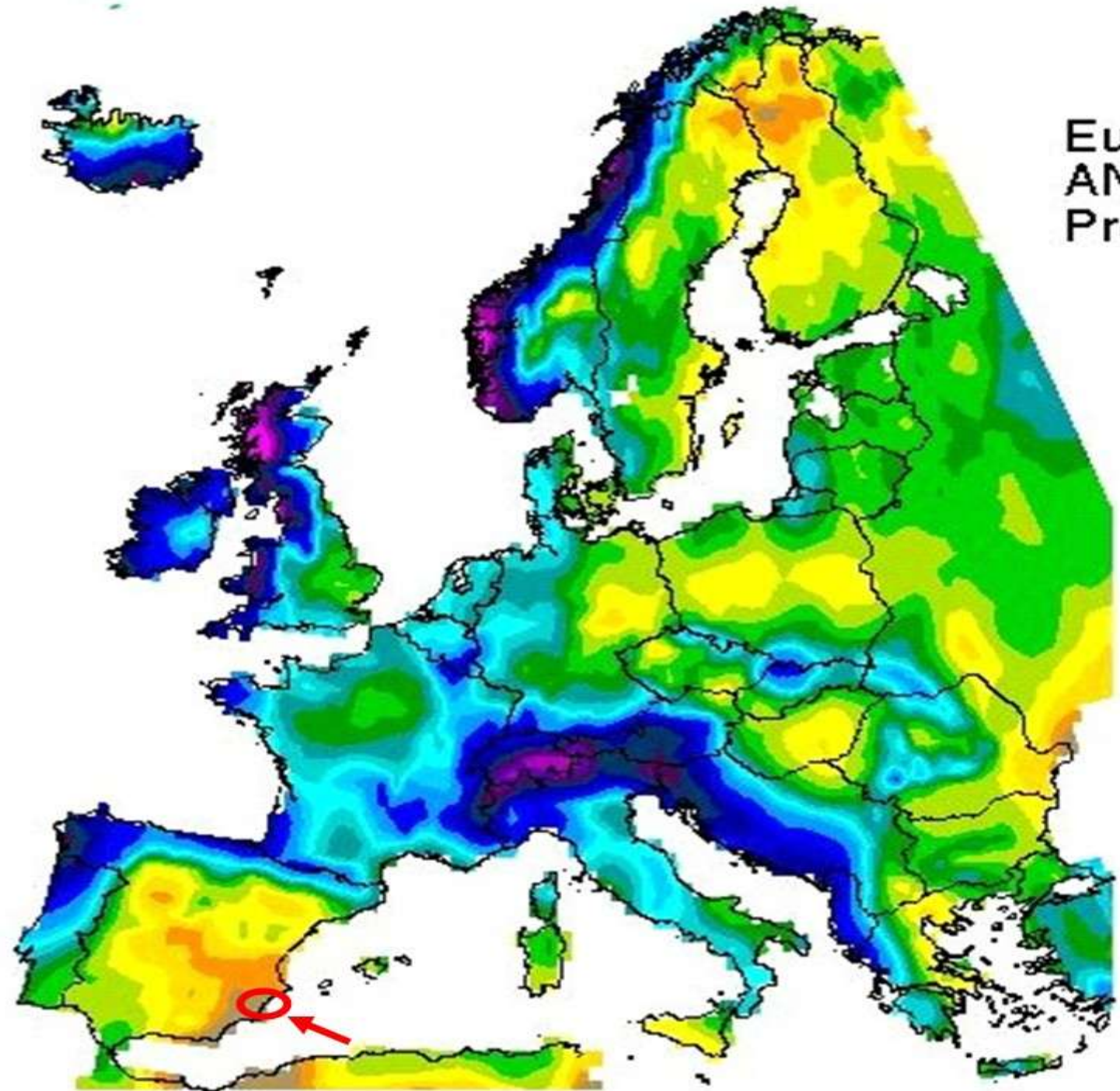
Water deficiency leads to:

- Bad overwintering
- Less fruits, unpredictable yield
- More pest attacks

Best sites – floodplains out of flood reach, groundwater level about 100 cm



# Europe - ANNUAL Precipitation



Precipitation [in mm]

300-400
400-450
450-500
500-550
550-600
600-650
650-700
700-750
750-800
800-850
850-900
900-1000
1000-1100
1100-1200
1200-1400
1400-1600
1600-1800
1800-2000
2000-2500
over 2500







Total cut



## Total cut

Still active growth in September, carbohydrates are not yet stored in the lower part of trunk and roots

Early harvest - not more than 30% of leaves may be removed

Late harvest - -----»----- 50% -----»-----

SBT varieties in Latvia do not tolerate this way of harvesting



Lower cut





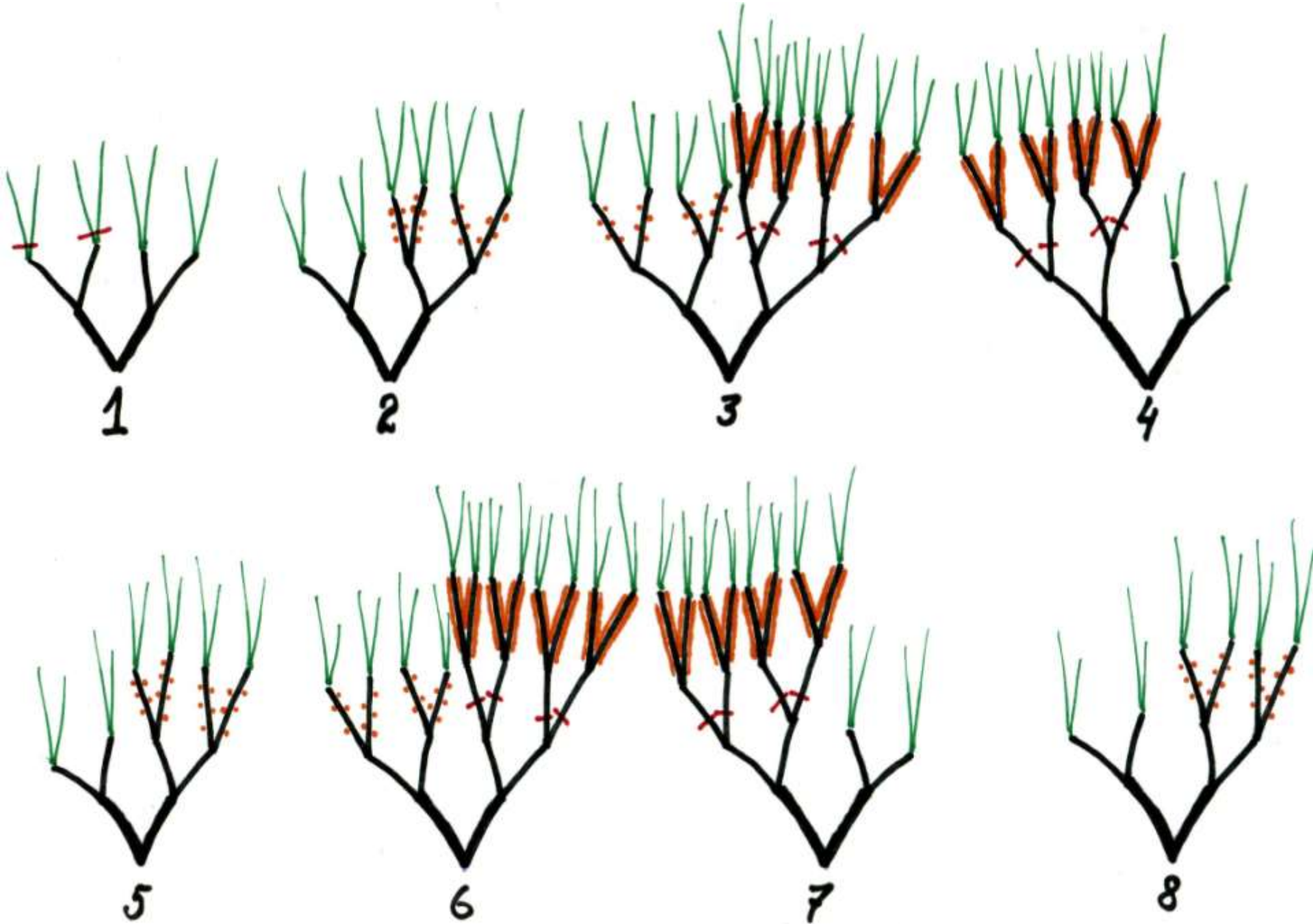




# Vertical split







## Advantages

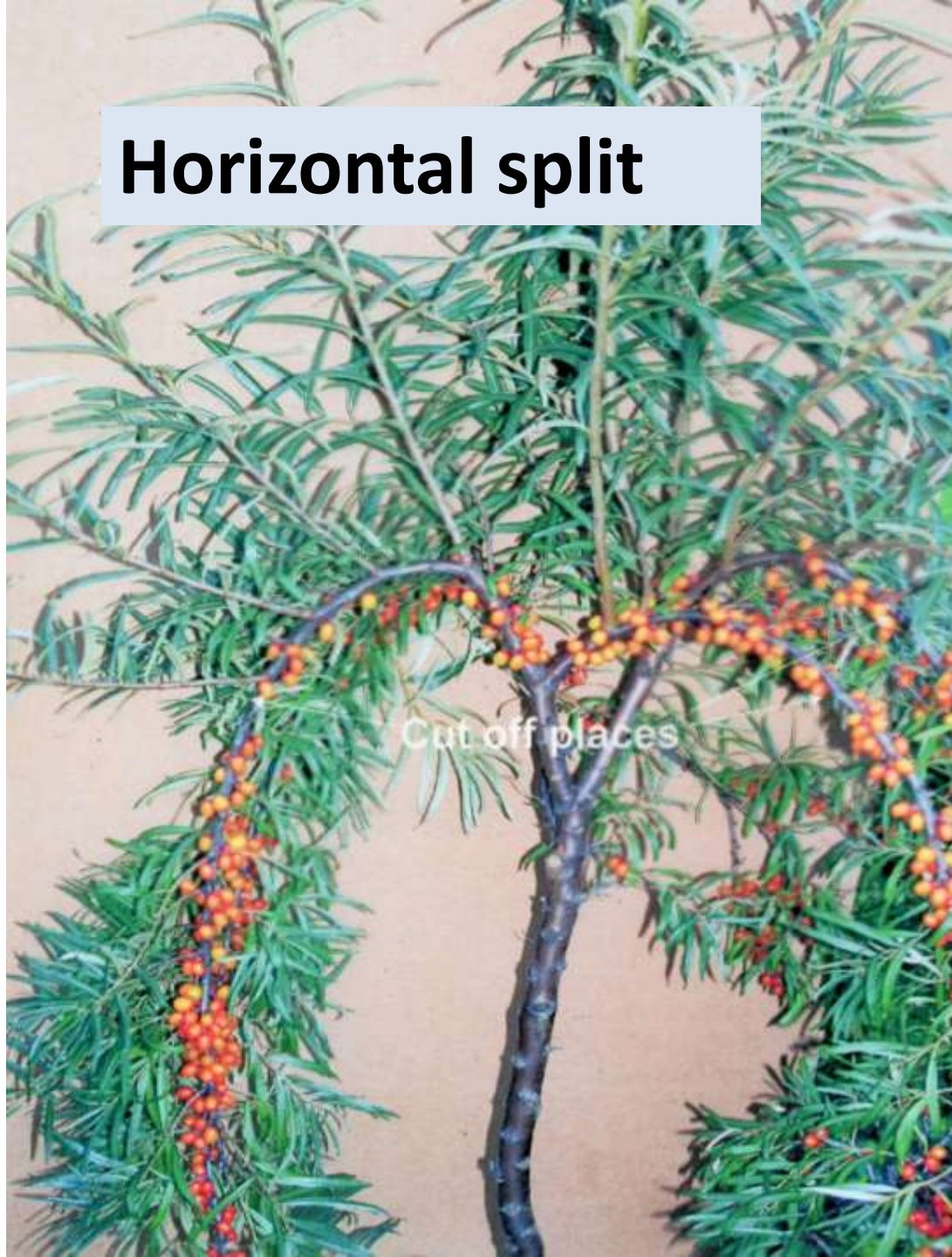
- Yielding part of the bush for a long time is located at easy accessible height
- Bush is gradually rejuvenated, avoiding long interruptions between harvesting years

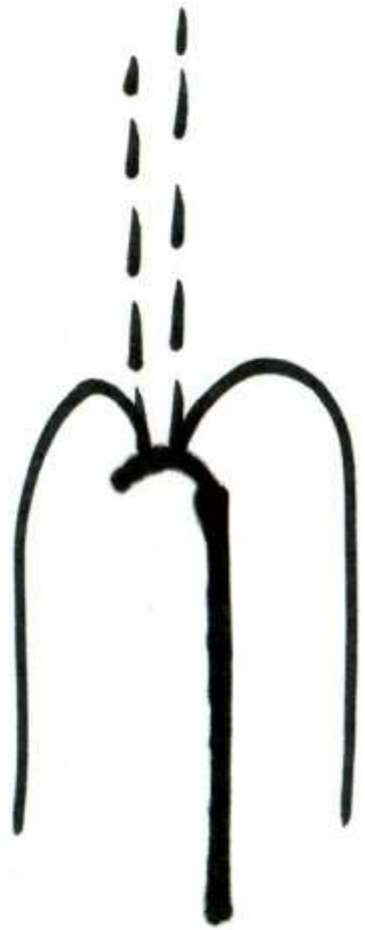
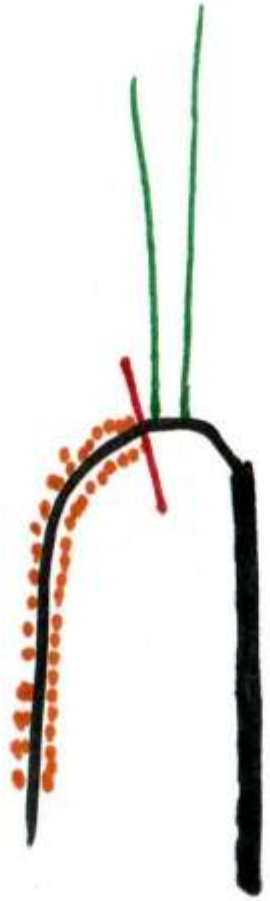
## Conditions

- Sufficient growing factors (soil, water, nutrients, light, temperature)
- Late harvest
- All branches on the harvesting side must be removed



# Horizontal split









**Vegetative zone**

**Generative zone**





**THANK YOU !**