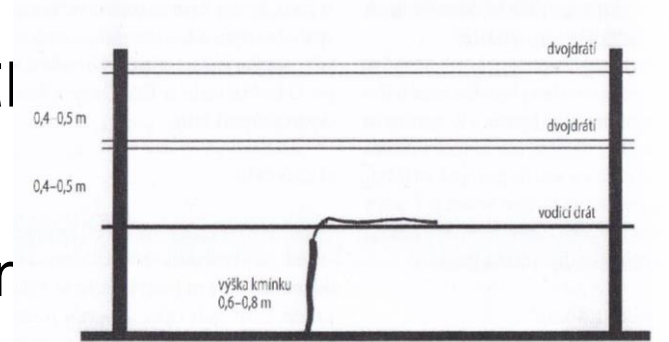


## Medium training

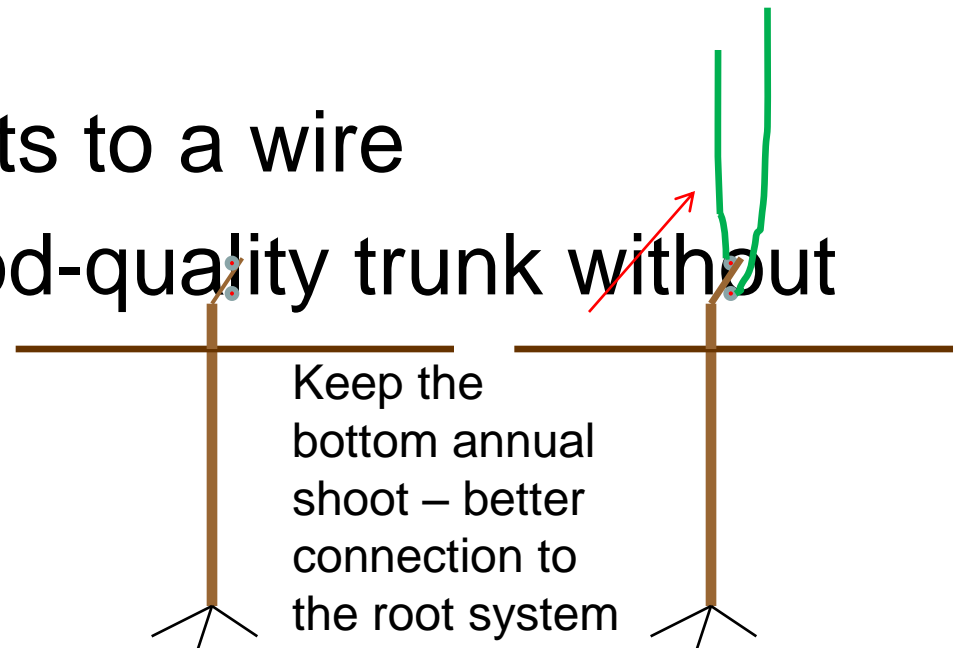
- Most common training in the Czech Rep. (small-scale winemakers as well as commercial producers)
- Trunk height: 0.6 m (blue varieties) – 0.8 m (white varieties)
- Spacing: 1.5-2.5 x 1.0-1.2 m
- 4,500-5,500 vines per 1 ha
- Support – trellis system
- Good height – allows for more convenient manual treatment of the vines
- The higher the trunk, the later the bud break and flowering and the slower the grapes ripe
- Risk of grape rot is decreased
- Optimum use of biological potential of the vine

# The so called Rhine-Hessen training

- Cane-pruned training
- Most common medium-height training



- After planting
- Shorten the seedling (rootstock stem) to 2 buds, cover with soil to prevent bud drying out / waxing
- Tie the annual shoots to a wire
- Aim: Cultivate a good-quality trunk without cutting wounds





ONEK TAJROV

A











## Plastic tubes

- Start after removal of suckers
- 5 cm into the soil
- Tubes suppress lateral shoot development
- Protect against game, herbicides
- Provide grapevine with optimum growing conditions
- Adverse conditions for fungi (mould, powdery mildew)
- Remove in winter
- Until green shoots grow out from the tubes, no need to treat the vine for diseases





- During cultivation of the trunk, eliminate grape clusters
- Grapes significantly weaken the growth



# Construction of wine supports

Stakes:

Steel

Concrete

Wooden

Plastic

Height of the trellis

# Techniques of cane training

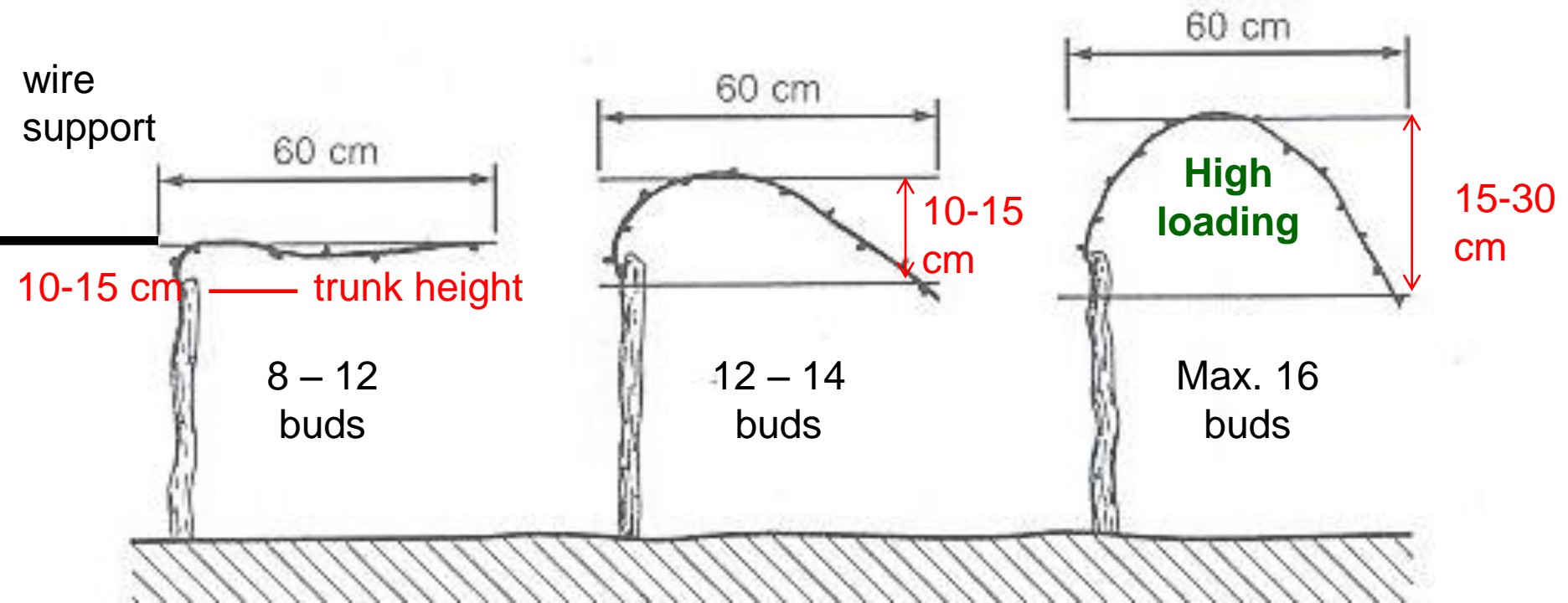
## 1. Horizontal arched canes

- Better: annual shoots and grape clusters are at the same height, easier picking
- Tedious tying to the wires

## 2. Semi-circular arched cane

## 3. Circular arched cane

Various bending and arching methods affect loading of vine

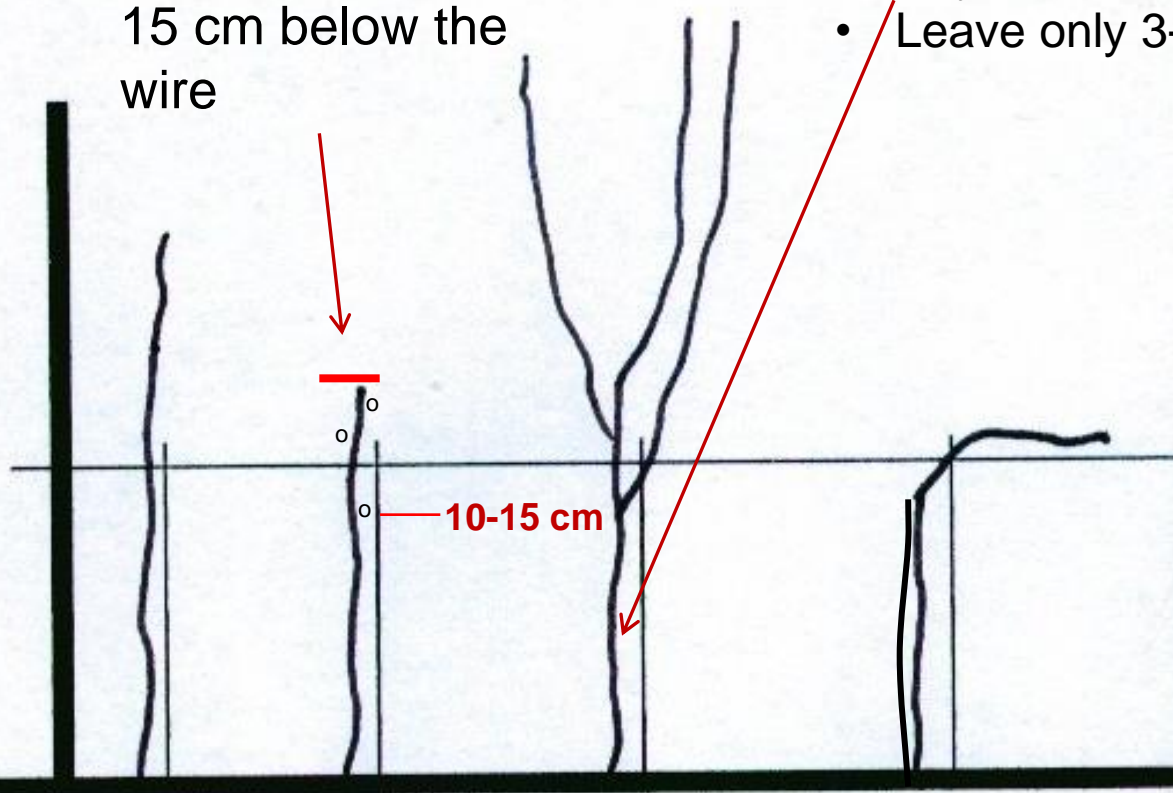


# a) Cultivation of trunk (horizontal arched cane, no renewal spur)

**PRUNING:** Cut above 3<sup>rd</sup>-4<sup>th</sup> bud, starting 10-15 cm below the wire

## REMOVAL OF SUCKERS:

- At the beginning of a growing season, eliminate all young annual shoots growing on the twig (future trunk, 5-10 cm long) all the way up to 10-15 cm below the wire
- Leave only 3-4 of the highest annual shoots

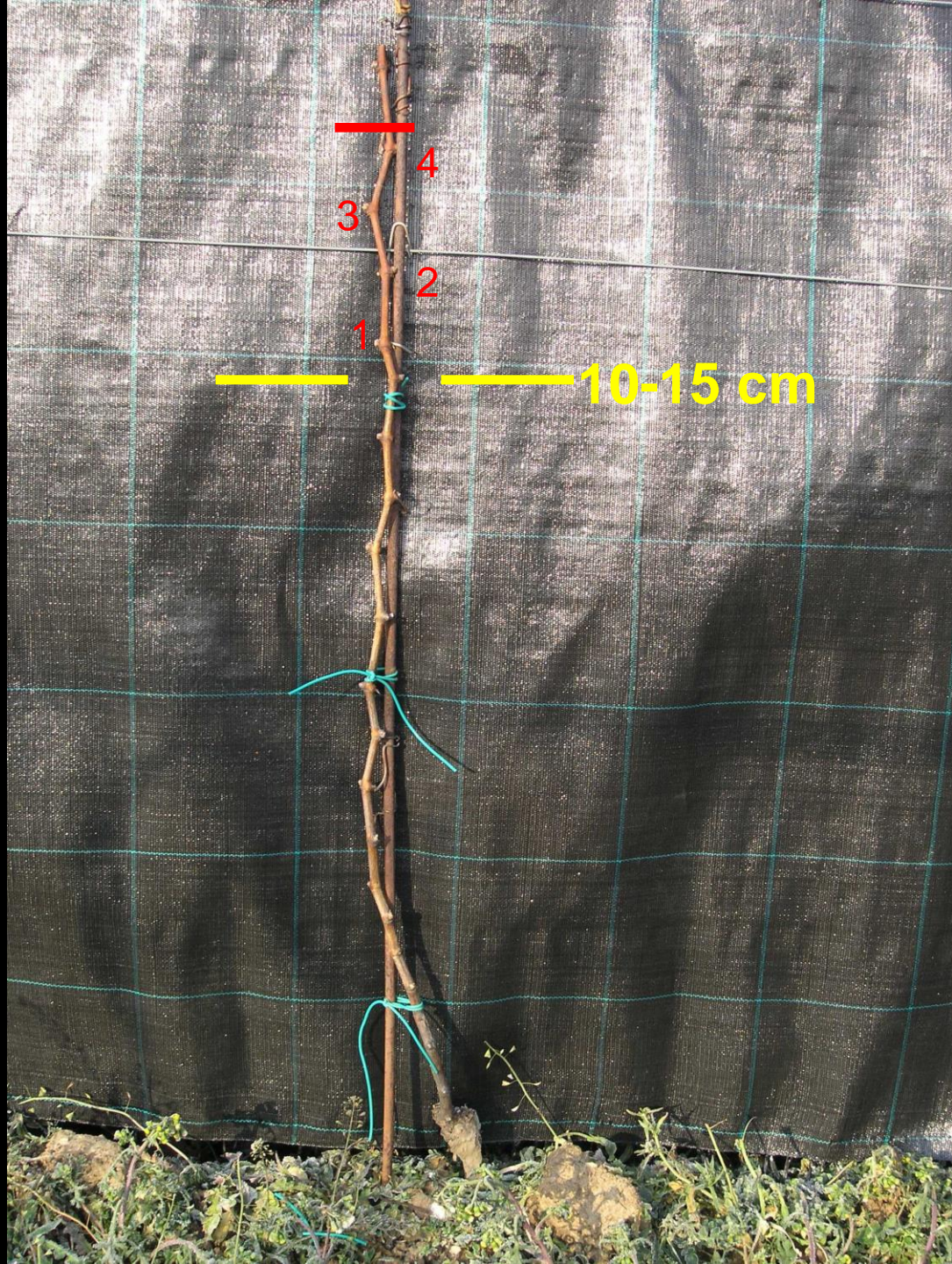


1. rok

2. rok

zapěstovaný kmínek,  
ukončený nad vodícím  
drátem

během vegetace  
ponechané na keři 3  
letorosty



4

3

2

1

10-15 cm

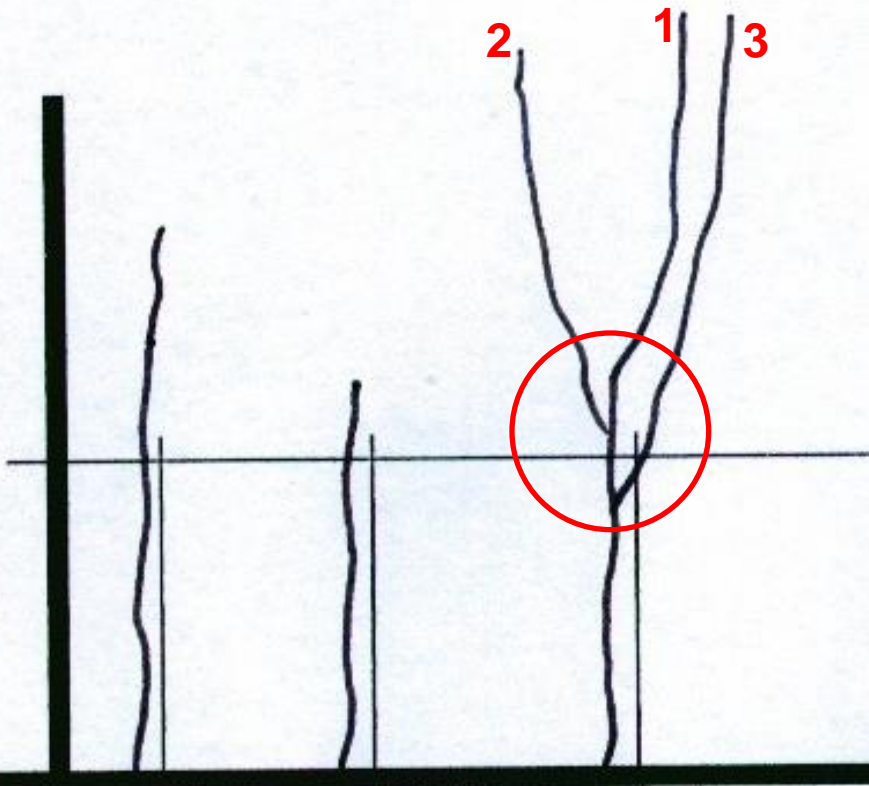




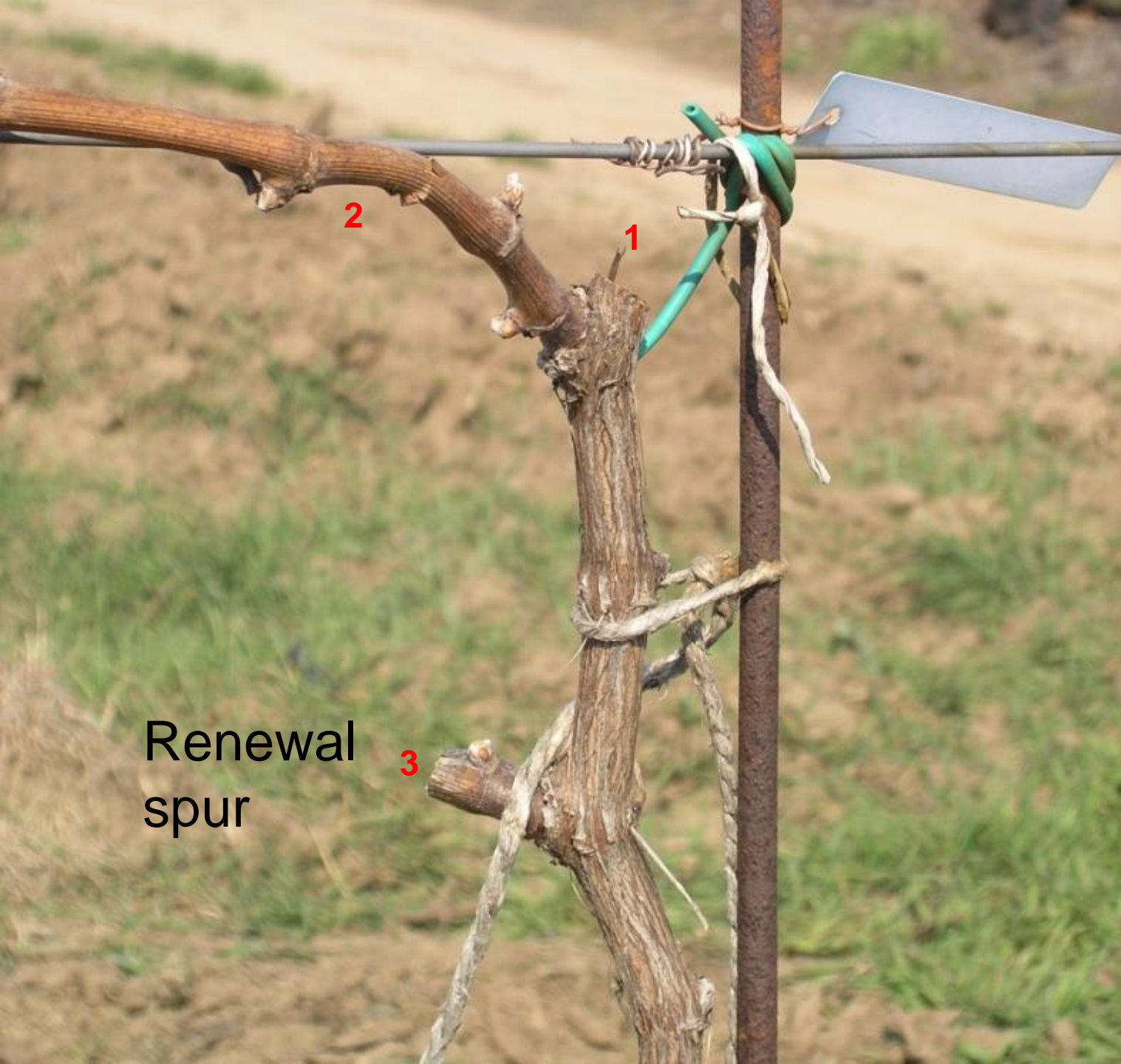
## Improper pruning of a future trunk

- Low – below the wire
- Only 2 annual shoots may be left on the trunk in order to eliminate number of cutting wounds, shoots grow vigorously

- b) Cultivation of trunk with renewal spur
  - The highest positioned shoot is eliminated (1)
  - A lower positioned shoot is cut to a 4 to 6-bud cane (gradual loading); once the sap starts flowing, the cane is bent; this suppresses the growth (2)
  - The third shoot is left and shortened to create a 2-bud renewal spur (3)





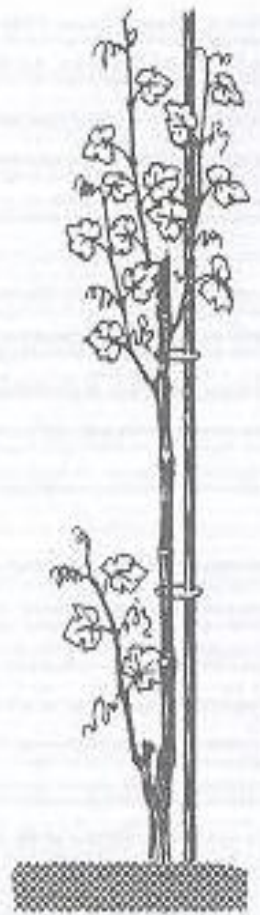


Renewal  
spur

2

1

3



# Renewal spur

- A one-year old wood, max. 2 buds
- Important for maintenance of a vine structure
- Often grows on the old wood
- Always closer to the roots than fruiting wood

