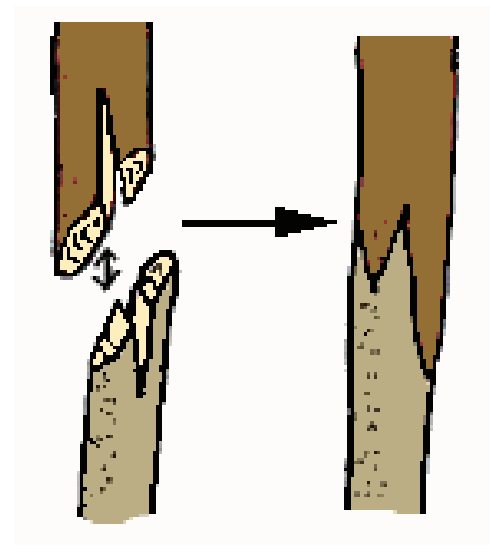




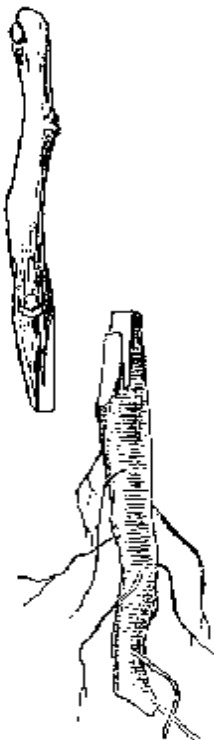
Kalemljenje



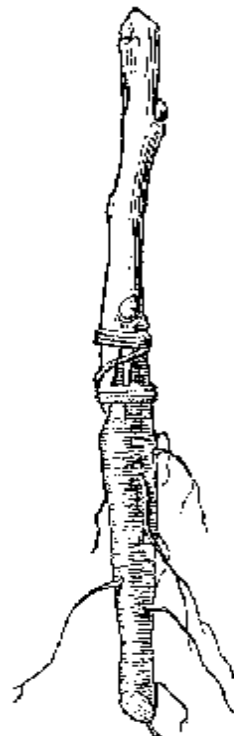
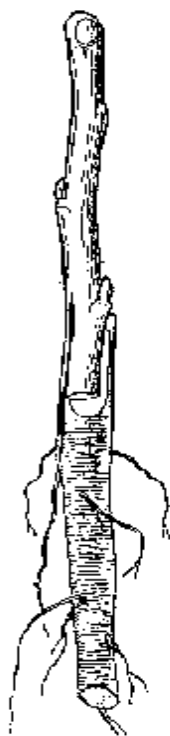
Prof dr Fikreta Behmen



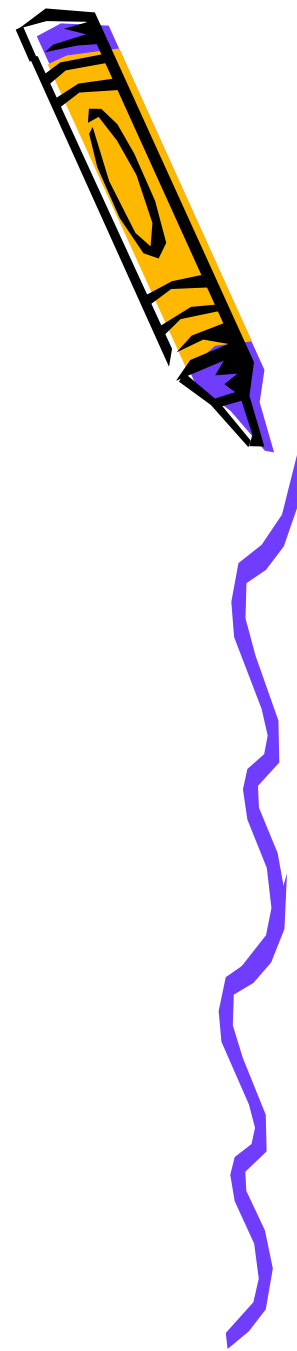
plemka



kalemljenje

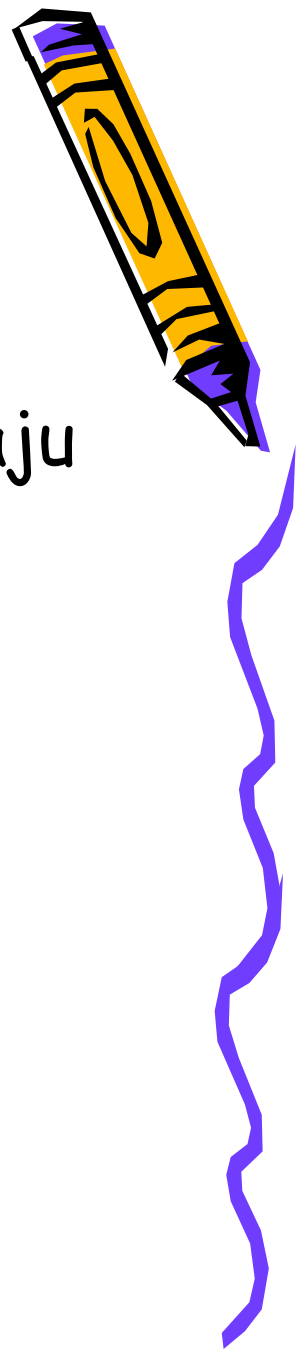


podloga



Kalem GRANČICA

- Kalem-grančice su mladari koji se uzimaju sa matičnog stabla za kalemljenje okulacijom ili ljetorasti za kalemljenje grančicom.



PRIPREMA kalem grančice ZA kalemljenje



- za proljetno kalemljenje, tzv. okuliranje na na budni pup ili na zeleno, plemke se uzimaju kada voćke odbace lišće
- plemke moraju biti zdrave, neoštećene i sa zrelim pupovima
- do proljeća ih čuvamo na temp. 0-3 °C u vlažnom pijesku ili u hladnjačama na 0 °C u polietilenskim vrećama



PRIPREMA kalem grančice ZA kalemljenje u ljetu



- za kalemljenje u ljetu, na spavajući pup, plemke se uzimaju neposredno prije kalemljenja
- odrezanu mladicu odnijeti u hlad, ukloniti listove ostavljajući 1/3 peteljke
- radnje napraviti što brže, kako bi mladice izgubile što manje vode
- pripremljene grančice omotati vlažnom krpom, odmah kalemiti ili čuvati u hladnim komorama na 1-5 ° C



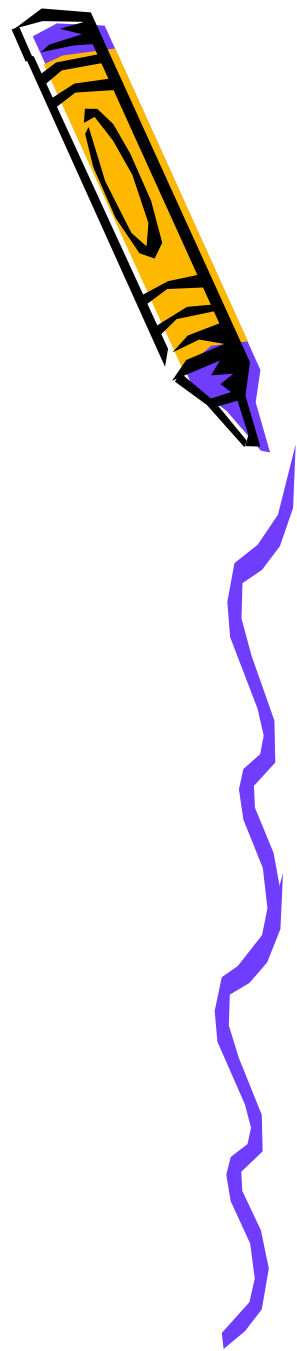
A. kalemljenje pupoljkom može biti

:1. kalemljenje na spavajući pupoljak;

2. kalemljenje na budni pupoljak.

B. tehnike kalemljenje grančicom su brojne, a najpoznatije su:

- prosto spajanje;
- englesko spajanje;
- spajanje sa strane;
- klinasto spajanje;
- sa cjepanjem kore;
- bez cjepanja kore;
- u pola procjepa;
- u cio procjep



Materijal za kalemljenje



Noževi i makaze za kalemljenje



makaze ZA kalemljenje



Omega Grafting



V Grafting



T Grafting





PLEMKA

wxsono.com

PODLOGA



NOŽEVI

HIPA - NOŽ



ZA OKULIRANJE



Materijal za vezivanje

GUMENE trake



POLIETILENSKE trake



MANILA



MANILA



POLIETILENSKA
traka



PODLOGA I PLEMKA MORAJU ČVRSTO
PRIJANJATI JEDNA UZ DRUGU

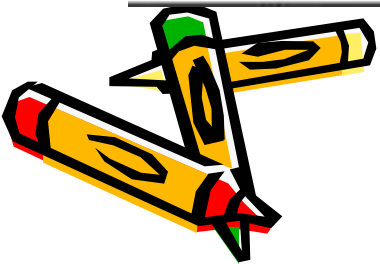
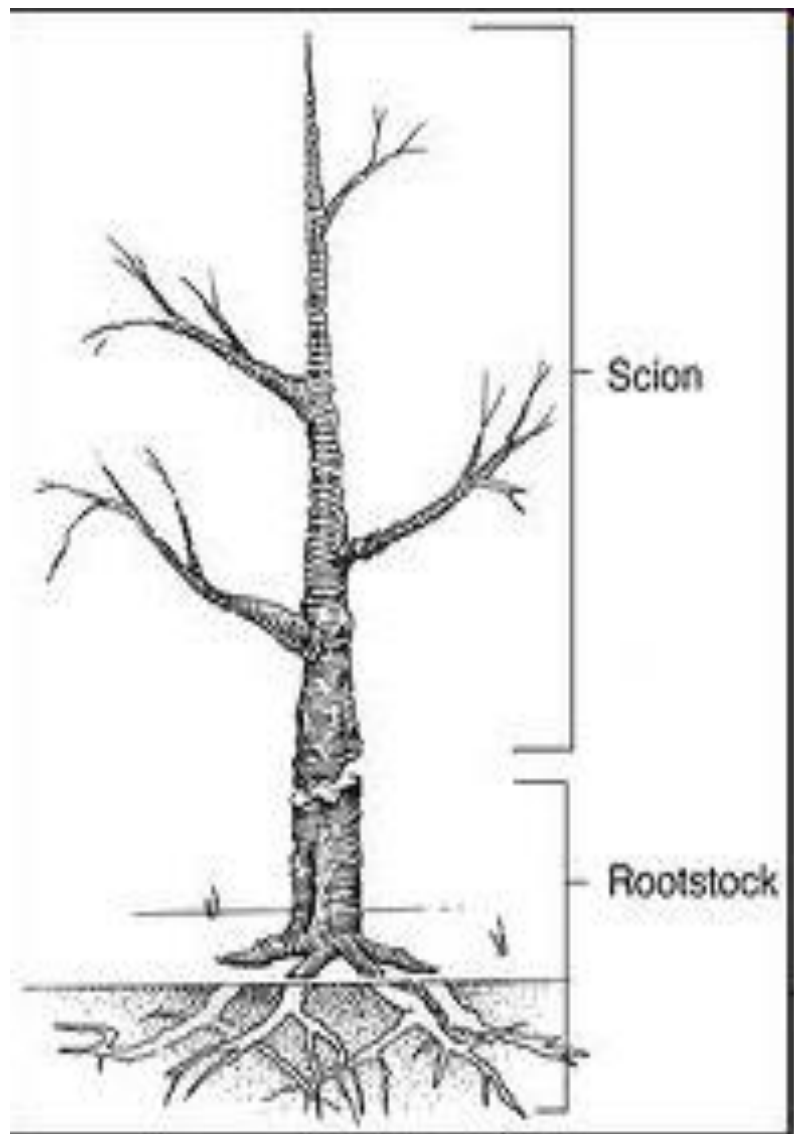


Voćarski vosak-za premazivanje presjeka i rana-štiti od vanjskih uticaja,sprječava isparavanje i pospješuju srastanje



Oprez !!!









PLEMKE UZETE NAKON
OTPADANJA LIŠĆA



PODLOGE



PODLOGA

PLEMKA



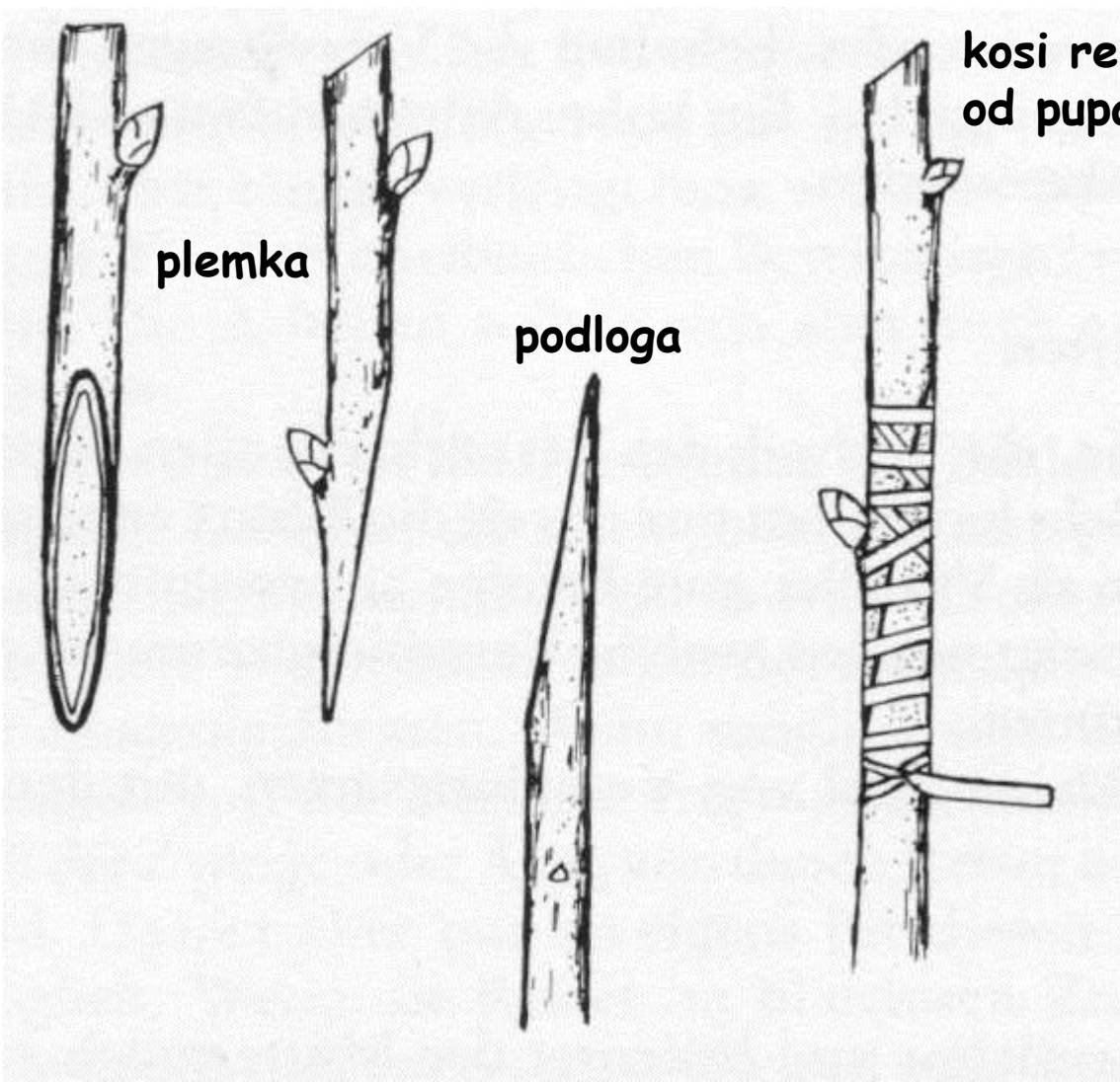
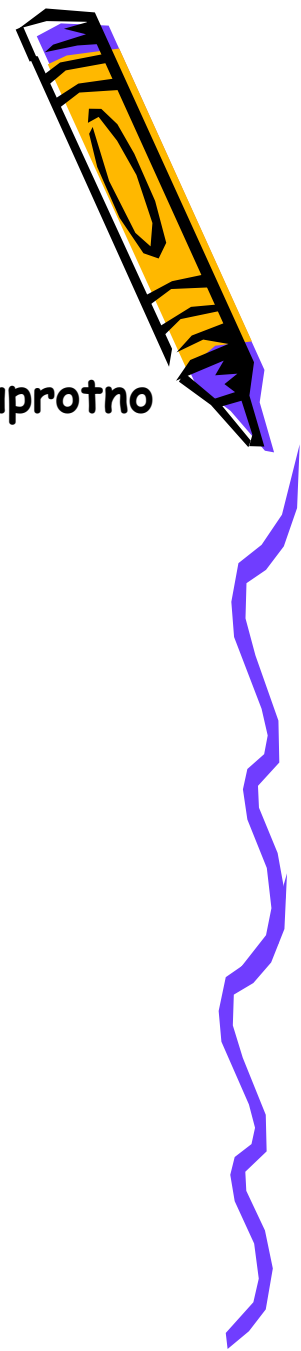
ZELENI KRUG JE KAMBIJALNI PRSTEN KOJEG
ČINE STANICE TVORNOG TKIVA.

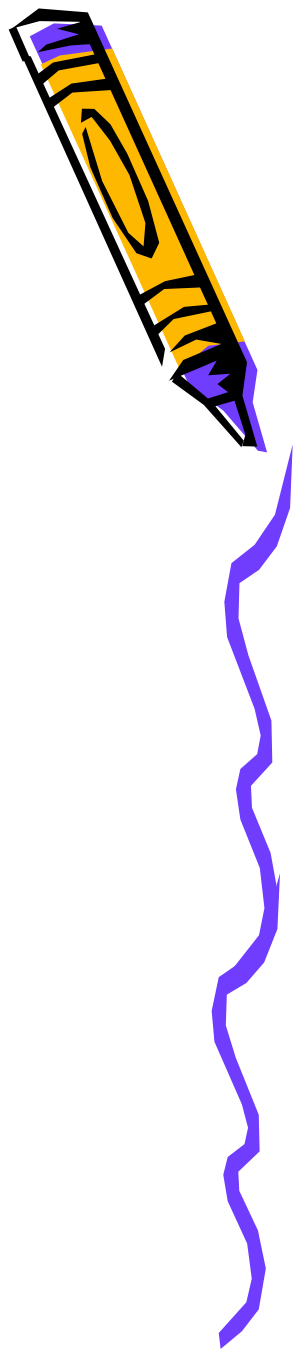
ZA USPJEŠNO kalemljenje JE POTREBNO
PREKLOPITI KAMBIJE PODLOGE I PLEMKE,
KAKO BI SE NA TOM MJESTU MOGAO
RAZVITI KALUS TJ.

TKIVO ZA ZARASTANJE RANA I SRAŠĆIVANJE.
O KVALITETI PREKLAPANJA ZAVISI
USPJEH KALEMLJENJA.

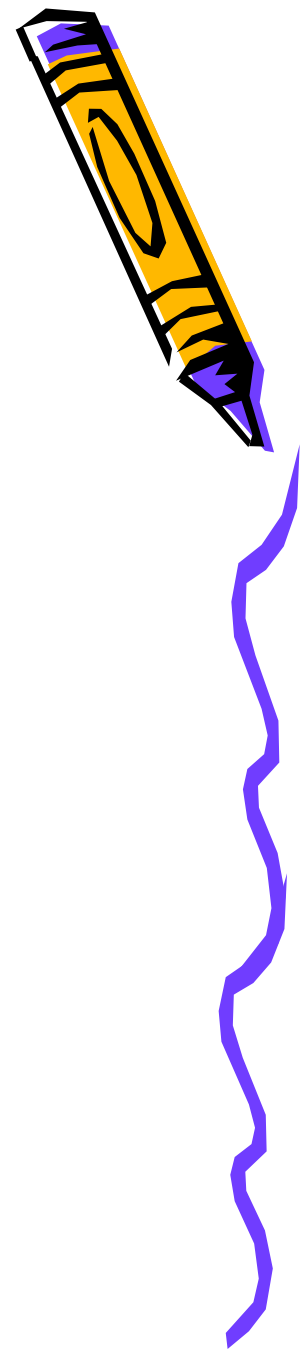
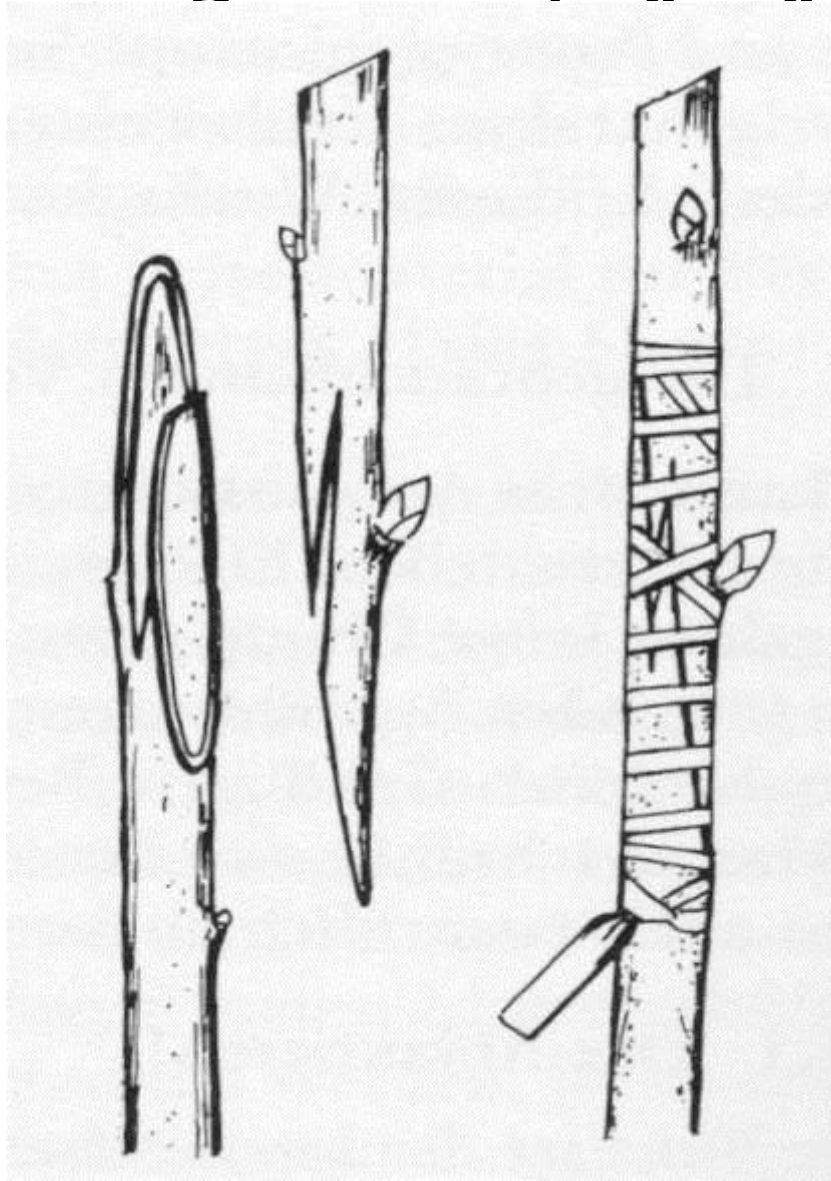


KALEMLJENJE na obični spoj-jednostavno spajanje

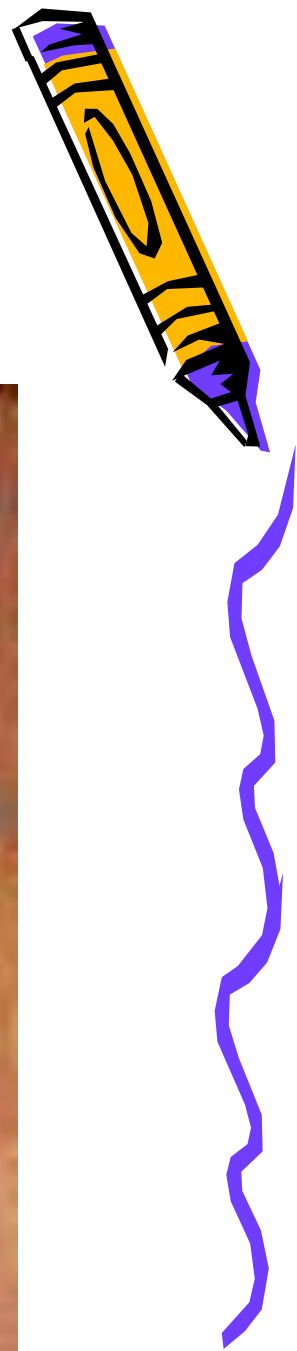




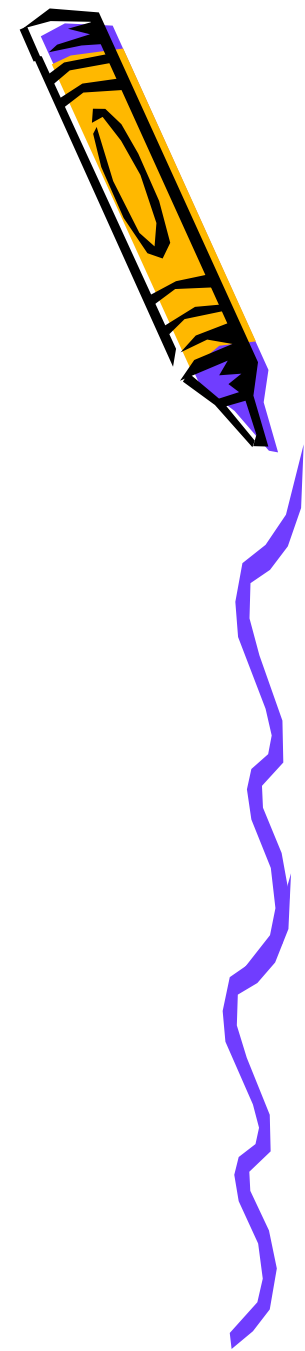
KALEMLJENJE na jezičac ili englesko spajanje



Spajanje na jezičac



Spajanje na jezičac



Spajanje na jezičac



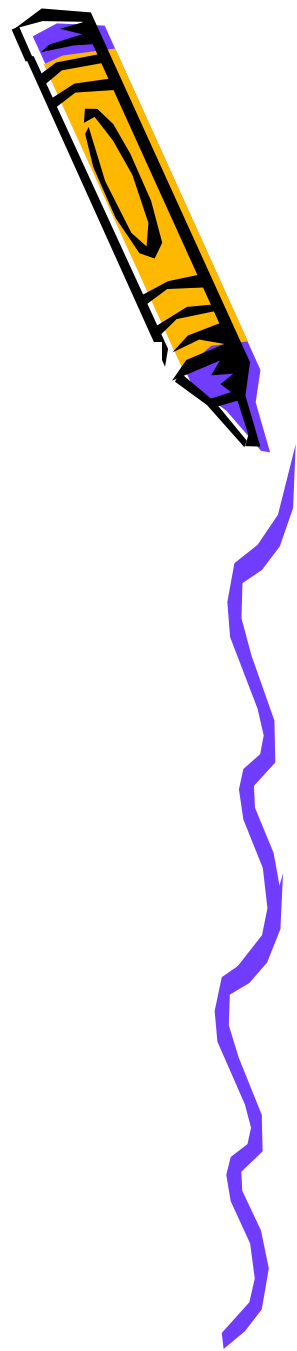
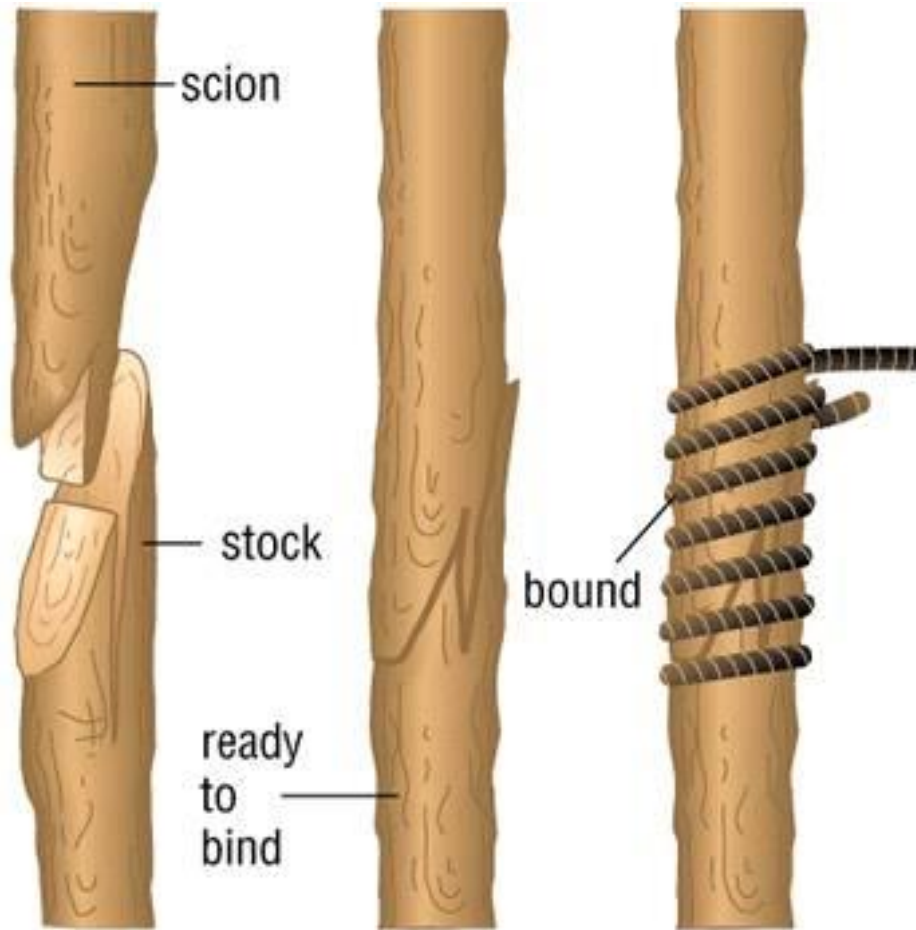
Spajanje na jezičac



Spajanje na jezičac



Spajanje na jezičac



KALEMLJENJE u trokut (klinasto c. ili na isječak)

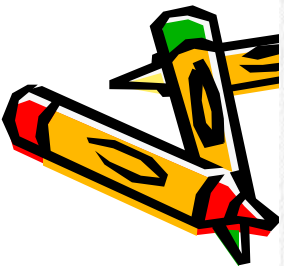
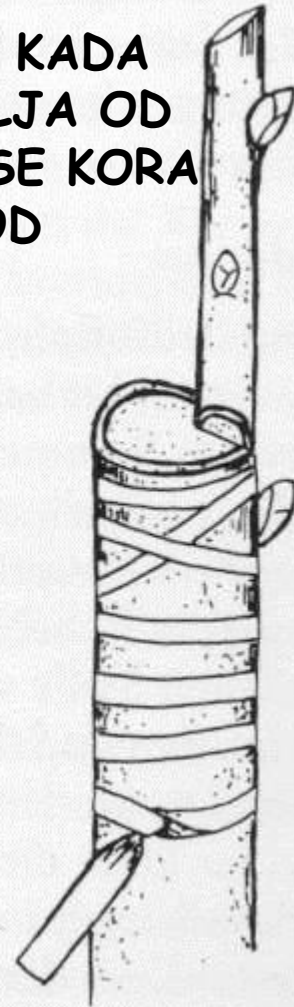


PODLOGA



PRIMJENJUJE SE KADA
JE PODLOGA DEBLJA OD
PLEMKE I KADA SE KORA
TEŠKO ODVAJA OD
DRVETA.

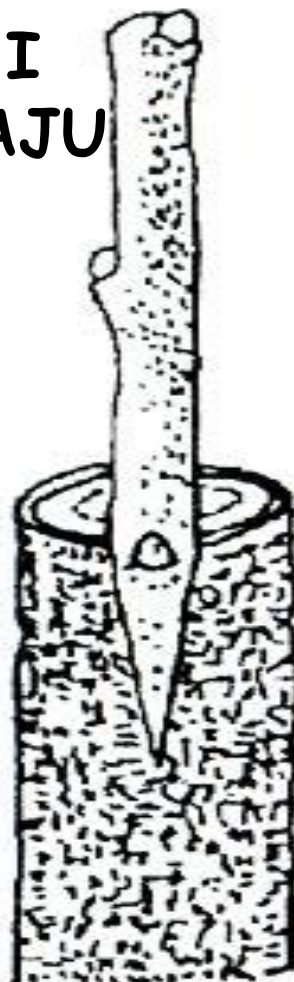
PLEMKA



Spajanje na isječak

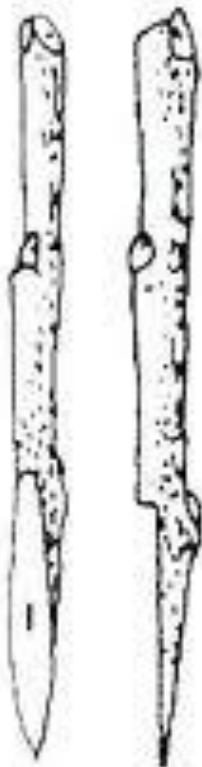


KORE PODLOGE I
PLEMKE SE MORAJU
POKLAPATI



KALEMLJENJE pod koru

plemka



rez koso iznad pupa



podloga

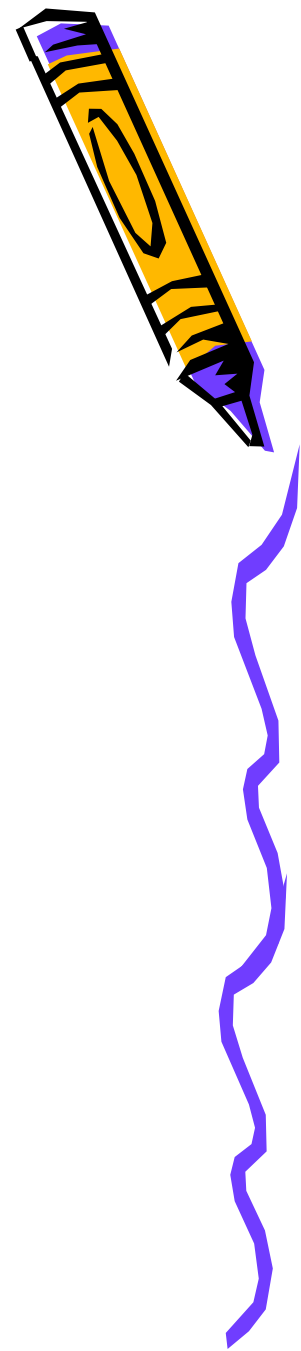
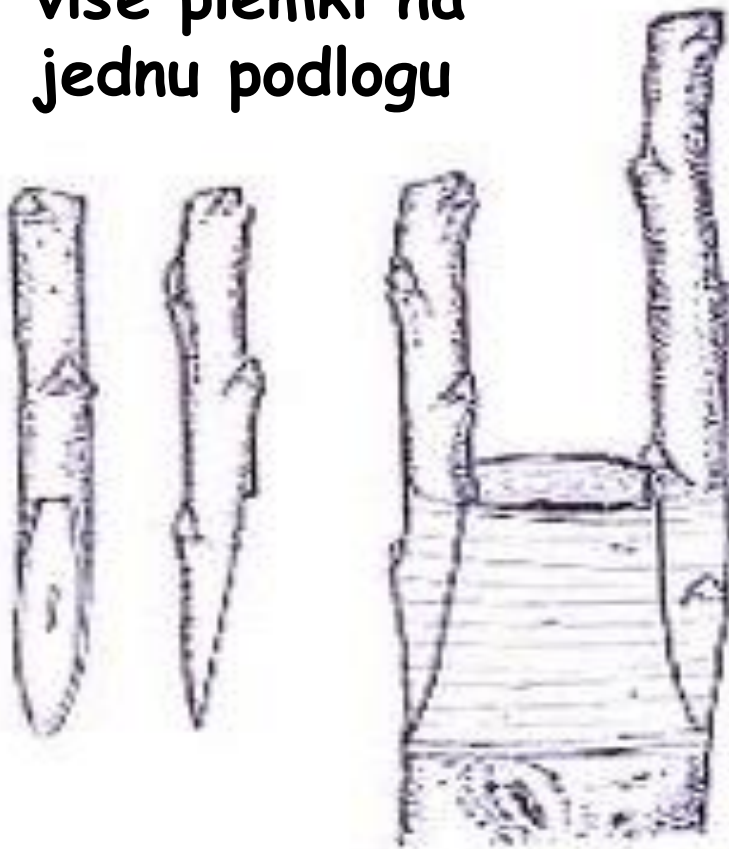


dobro povezano mjesto
kalemljenja



KALEMLJENJE pod koru

moguće kalemiti
više plemki na
jednu podlogu



Zarezivanje kore na podlozi

kambij





Kosi rez na plemki


Pripremljene plemke

kosi rez na plemci



kambij






**Umetanje
grančica plemki
pod koru podloge**



Vezivanje kalema



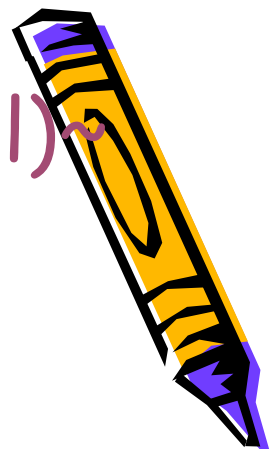


**Premazivanje
voćarskim
voskom**



~ KALEMLJENJE u procjep (raskol) ~

- Primjenjuje se pri prekalemljavanju starih stabala, odnosno kada je podloga znatno deblja od plemke.
- Na vodoravno izvedenom presjeku podloge izvede se procjep koji se razmakne tupim dijelom noža ili se postavi drveni klin, na plemci, s 2-3 pupa, s dvije suprotne strane se naprave kosi zasjeci sa sedlastim zarezom koji sjednu na podlogu.



A close-up photograph of a dark, woody plant stem. A node is visible where a small, pointed structure, likely a bud or young leaf, is attached. The stem is held between the fingers of a hand.

plemka

Two side-by-side close-up photographs of the stem tip. The left image shows a diagonal cut on the left side of the stem. The right image shows a diagonal cut on the right side. The cuts are made at opposite sides of the stem.

kosi zasjeci na
plemki,
izvedeni
na dvije
suprotne
strane

**Plemka, koso zasječena na dvije
suprotne strane**



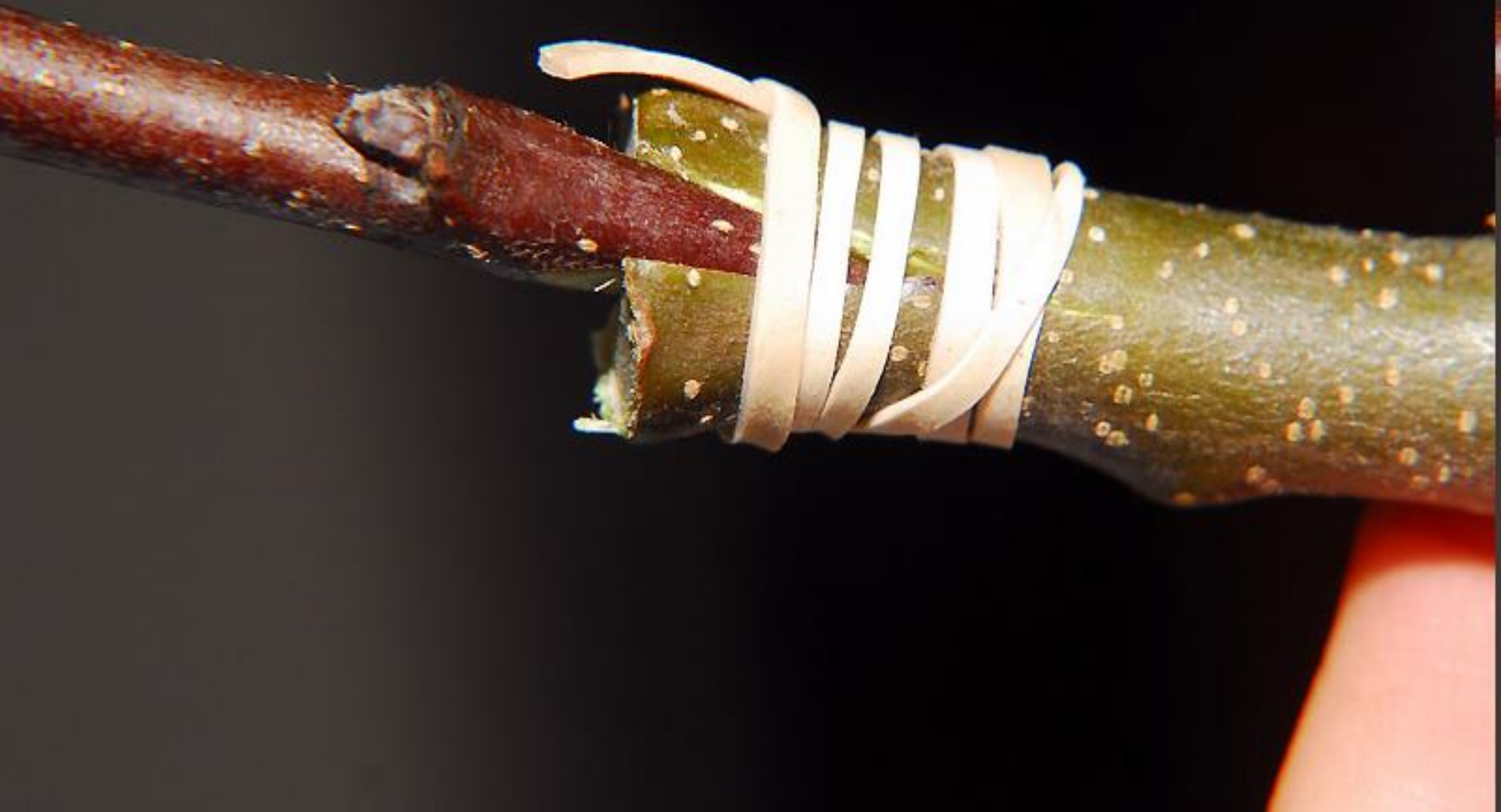
Pravljene procijepa na podlozi



Umetanje plemke u procjep podloge



Vanjski sloj kore
podloge i plemke
se moraju poklopiti





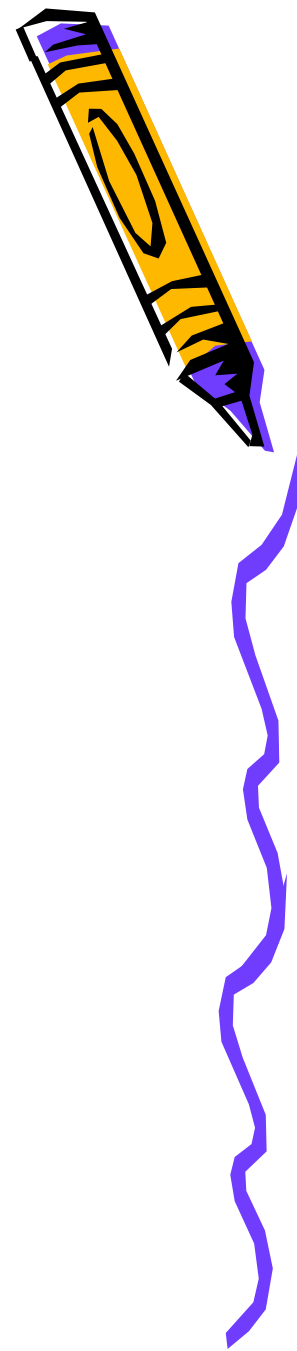
SUNGLASS

ANCHOR BOWL RING

The Plumber's 1st CHOICE Since 1933™

32360

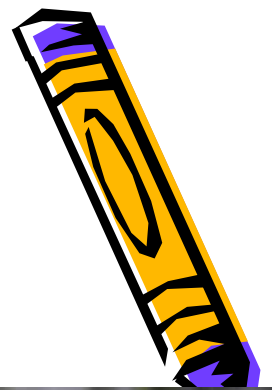
Dobro
srasle podloga i plemka





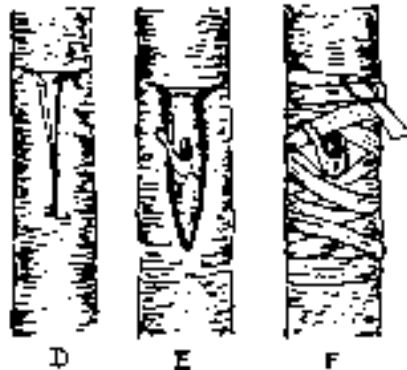
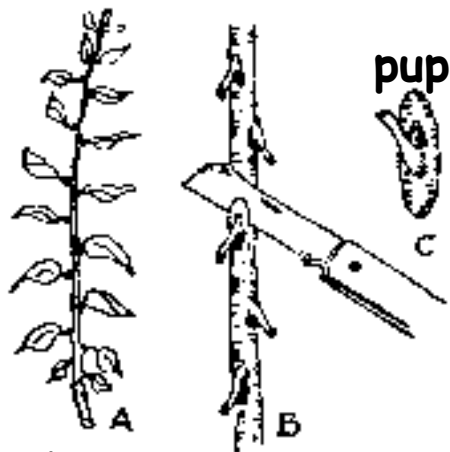
kalemljenje u procijep kada je podloga deblja od plemke

kalemljenje u procijep i vezivanje

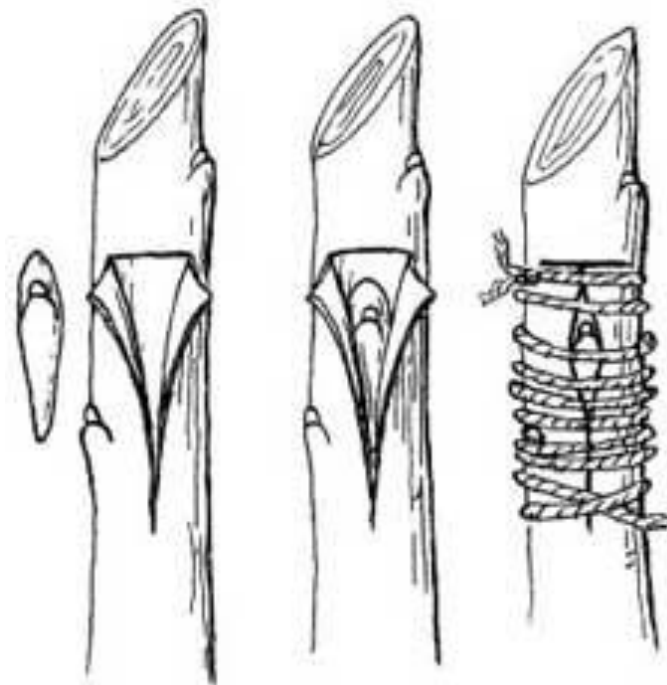


Okuliranje T-urezom

pravljenje T ureza i
umetanje pupa i vezivanje



skidanje pupa
plemke



okuliranje podloga se izvodi na
5-15cm iznad površine tla



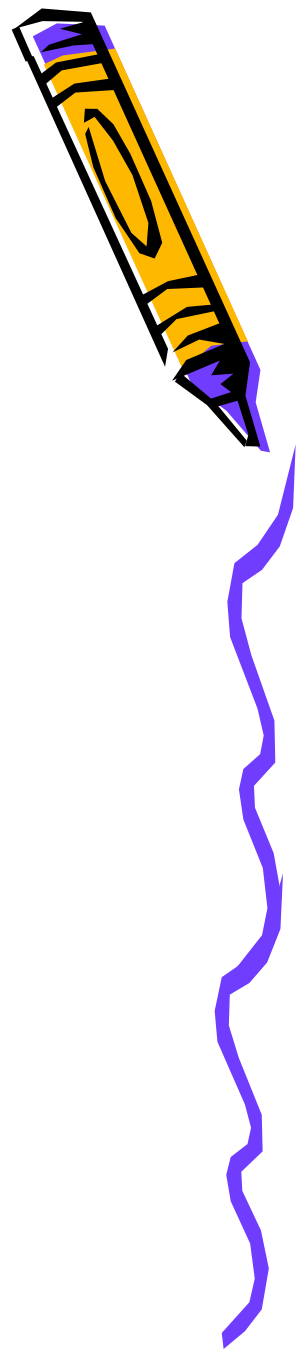
A close-up photograph of a green plant stem, likely a grapevine, showing a T-cut graft union. The stem is covered in a dense, textured, light green lenticular pattern. A horizontal cut has been made in the stem, and a vertical cut has been made through it, creating a T-shape. A small, light-colored, pointed graft union is visible within the vertical cut. The background is a plain, light-colored surface.

podloga

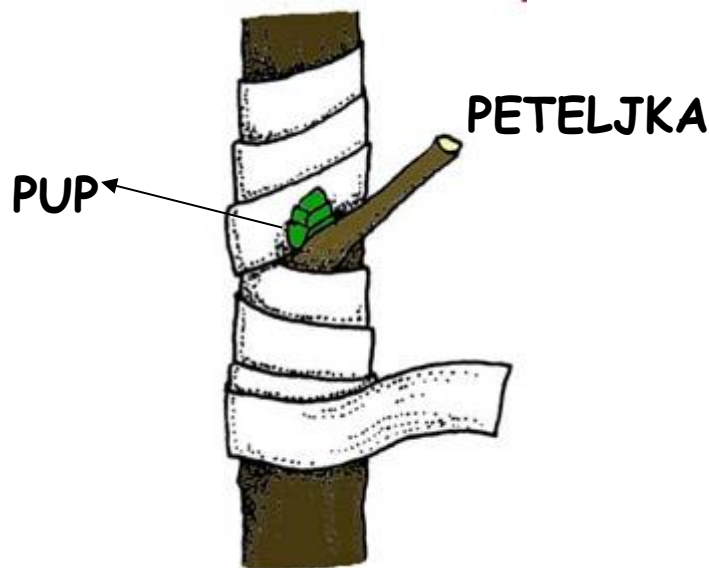
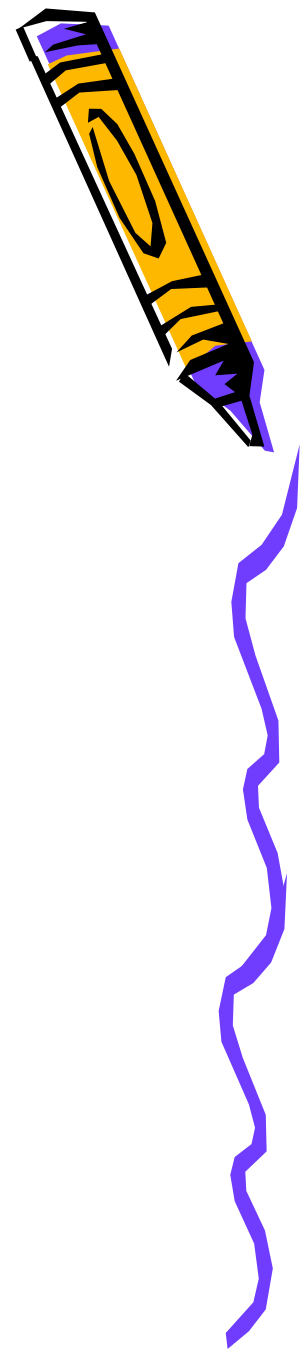
pup-
prema gore

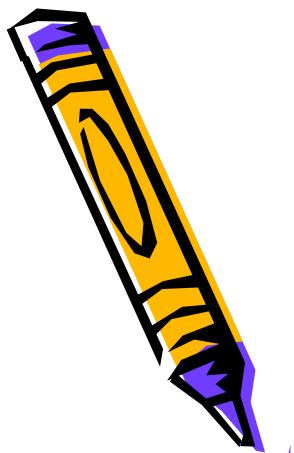
Okuliranje T-urezom

Okuliranje T-urezom

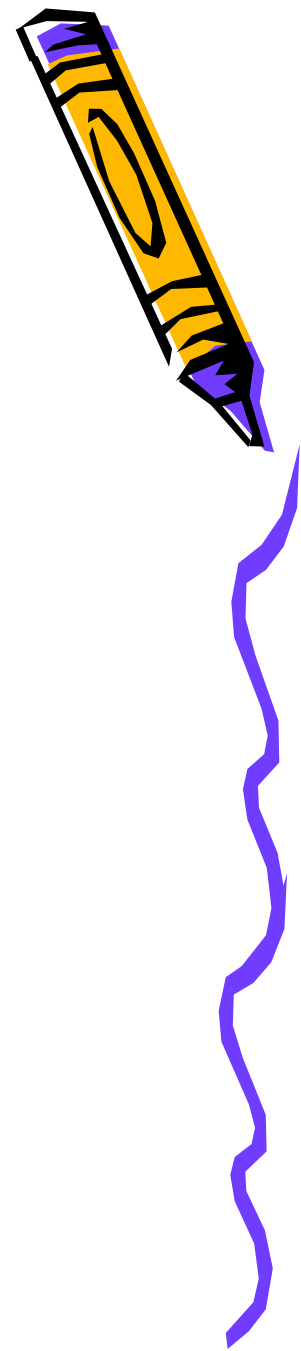
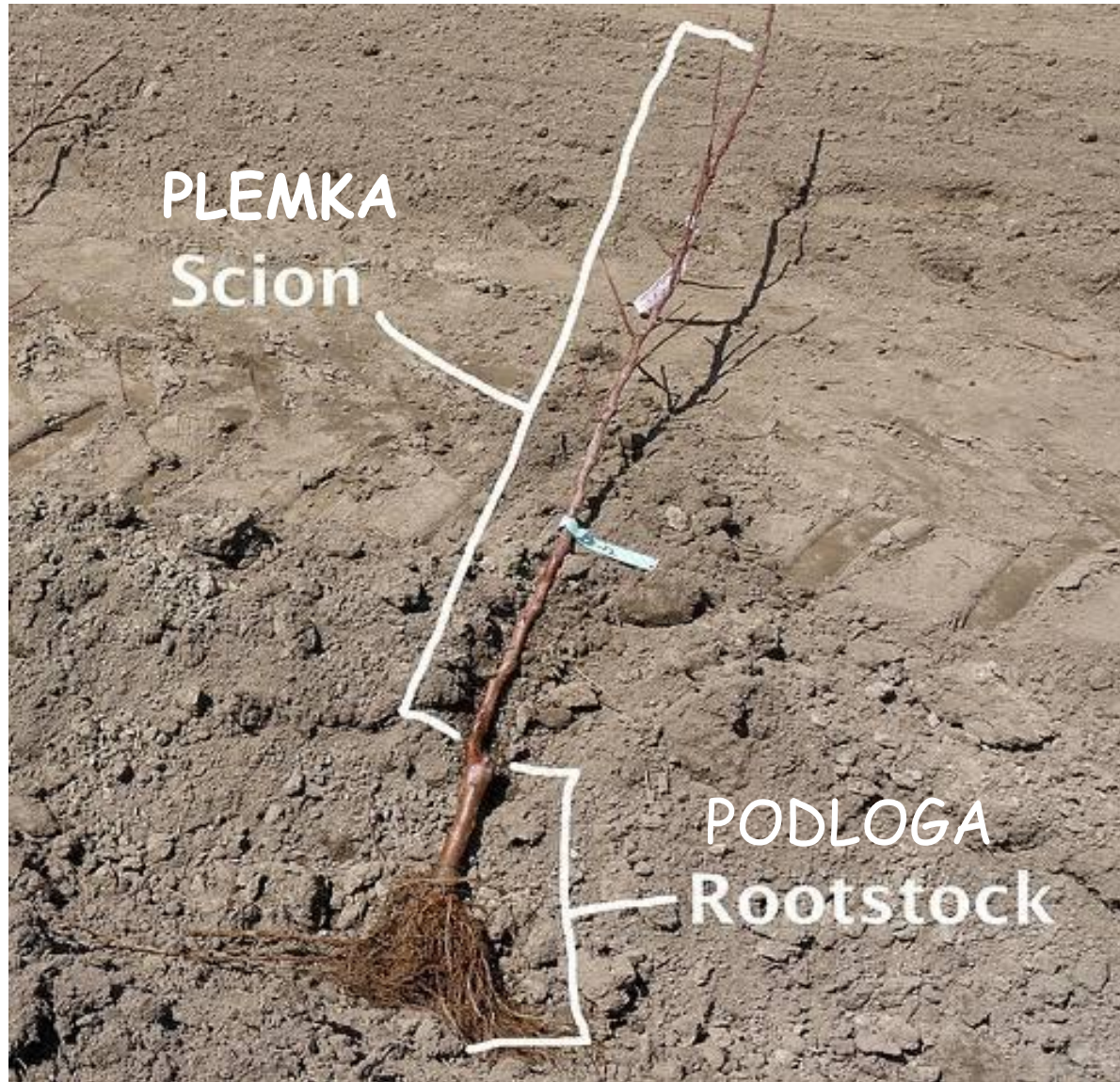


Okuliranje na spavajući pup-kontrola primanja





VOĆNA SADNICA





JEDNOGODIŠNJA SADNICA



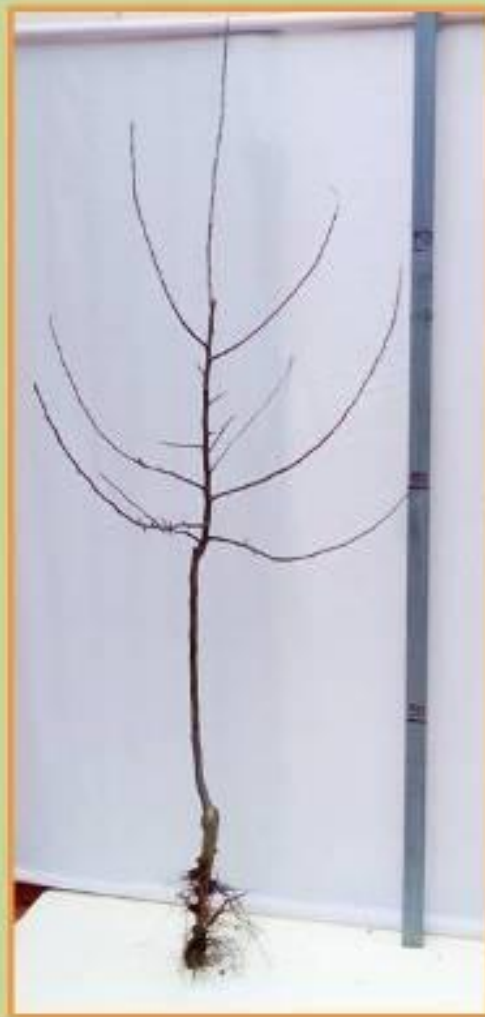
JEDNOGODIŠNJA RAZGRANATA SADNICA



JEDNOGODIŠNJA SADNICA BRESKVE



BIBALIM SADNICA



DVOGODIŠNJA SADNICA JABUKE



DVOGODIŠNJA SADNICA ŠLIJVE





UTRAPLJENE VOĆNE SADNICE

TRAPOVI ZA SADNICE





KRAJ

