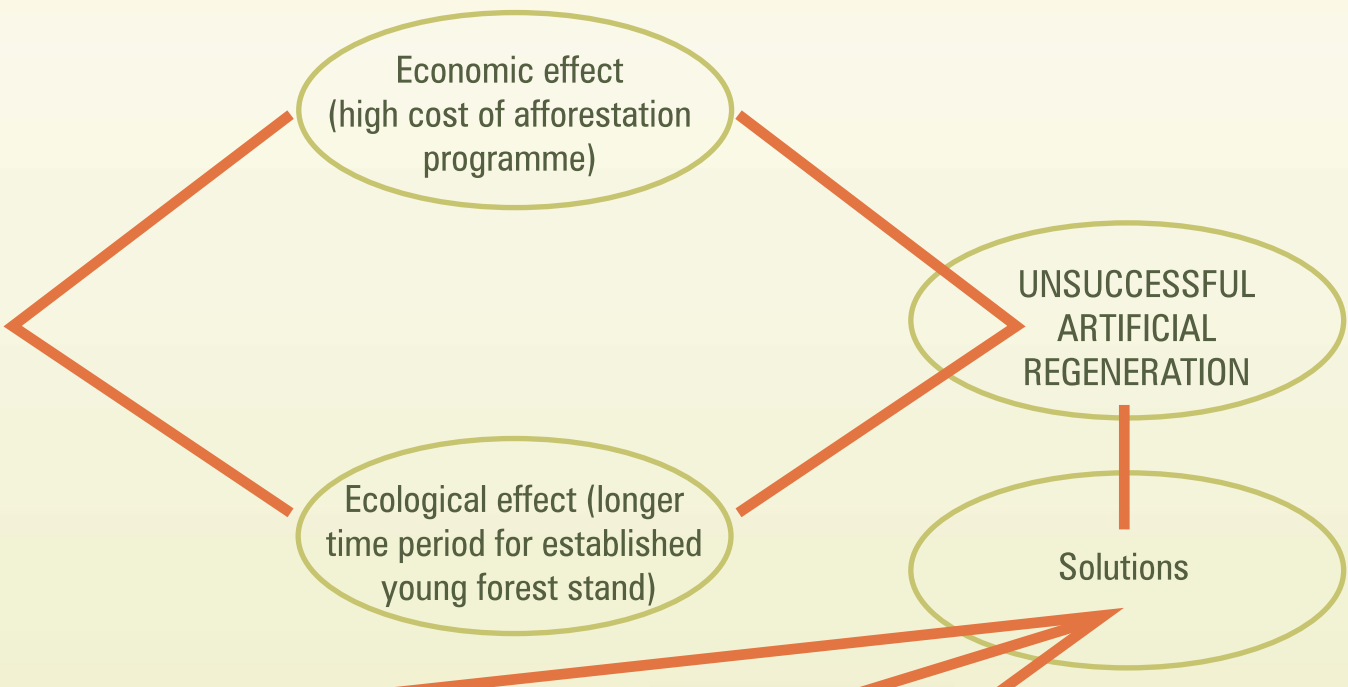
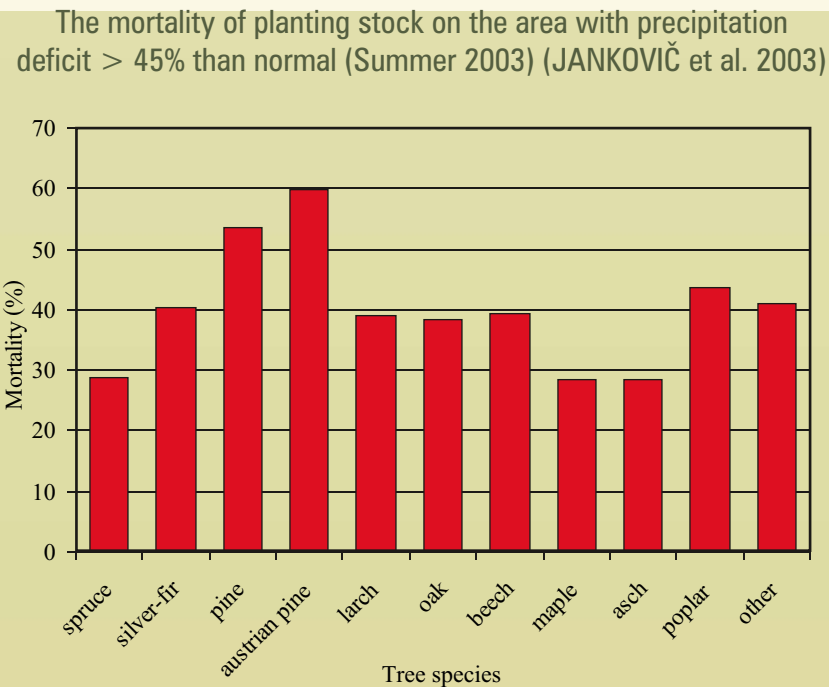


The effect of drought on artificial regeneration in Slovakia in 2003 and the possibilities to increase plant adaptability after plantation in Central Europe

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Weather conditions in Slovakia during 2003:
– the precipitation deficit was about 150 mm from February to September
– in the summer, it was noted the most temperature extremes during last 200 years



A

Suitable forest tree species (according to environmental conditions)

?

CLIMATE CHANGE

B

Planting stock quality testing

?

SUITABLE METHOD FOR COMPLEX DETERMINATION OF PLANTING STOCK QUALITY IN CENTRAL EUROPE

C

Application of new or modified afforestation procedures

Containerized planting stock Application of hydrogels (STOCKOSORB)

Advantages:

- protection of exposed roots from drying during transportation and storage,
- increasing of the water holding capacity of soil,
- promotion of faster and better root development,
- provision of uniform moisture supply to the plants,
- long-lasting effect,

Variant	Survival (%)	Height (%)	Root collar diameter (%)
Control	100	100	100
Powder	100	140	120
Variant	100	140	120
Micro	100	140	120
Powder + Micro	100	140	120

Survival, height and root collar diameter of beech plants in % from control variant after first vegetation period (means followed by the same letter are not significantly different)

Application of STOCKOSORB@Micro gel to planting hole directly before planting (Photo by TUČEKOVÁ)

Variant	Survival (%)	Height (%)	Root collar diameter (%)
Control	100	100	100
Powder	100	120	110
Variant	100	120	110
Micro	100	120	110
Powder + Micro	100	120	110

Survival, height and root collar diameter of oak plants in % from control variant after first vegetation period (means followed by the same letter are not significantly different)

Application of STOCKOSORB@Powder for root protection during handling and transporting (Photo by SARVAŠ)

Following research of hydrogel:

Application of STOCKOSORB@MICRO to substrate for containerised spruce seedlings (Photo by SARVAŠ)

Application of STOCKOSORB@POWDER for root system protection of containerised JIFY beech seedlings during transporting (Photo by SARVAŠ)

Close European cooperation



References:
JANKOVIČ, J. – TUČEKOVÁ, A. – PÔBIŠ, I., 2003: Preliminary evaluation of reforestation failures in year 2003. Les 9, (in Slovak)

