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PROBLEM
• too much CO₂ in atmosphere
• anthropogenic input from fossil fuels

SOLUTION
• sustainable / renewable energy sources
• short rotation coppice

GOAL
• find optimal management
• to maximize productivity
• with low environmental cost

ADAPTATIONS TO THE ORCHIDEE MODEL FOR SRC SIMULATION

MANAGEMENT ADAPTATIONS
• Coppice = remove aboveground biomass
• Uprooting (final harvest) = remove above + belowground biomass
• Irrigation = add x mm of rain per day

PHYSIOLOGICAL PARAMETERS
• \( V_{\text{c max}} \) & \( J_{\text{max}} \) = much higher
• SLA = 66% of regular broadleaf tree
• Stand density = after coppicing 1 stem resprouts into multiple stems

ALLOCATION ADAPTATIONS
• Sexual reproduction = not present for 5 years after coppice
• Allocation to leaves = \( \text{LAI}_{\text{max}} \sim \text{stand age}^2 \) (2 years)
• Woody root growth = ± 10 after coppice