

Supporting Information:

Topsoil Translocation: One Step From The Tip

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Question: What considerations are given to fauna in the process of topsoil translocation?

Answer: As outlined in the presentation: the donor site is due for clearance, the use of the topsoil is an ameliorative consideration due to the consented clearance. Faunal considerations are the same as for any site due to clearance and are for the consenting authorities to determine.

Question: What preparation is done at the recipient site, prior to receiving the topsoil?

Answer: An initial assessment of the site's suitability is important. Ask the questions: Is it part of the same community? Are there similar abiotic and biotic environments?

Basic preparation includes the removal of all exotic species to the core of the site and to the perimeter of the site. This may involve the removal of some marginal native vegetation that is weed invaded to ensure a 'clean' site. If the abiotic environment of the recipient site is too alien to the original site's condition (ie the use of bitumen or introduced capping material, or a landfill capped in clay), then this unsuitable material can be capped with the lower soil horizons (subsoil) from the donor site to create a similar soil profile for the translocated topsoil to provide suitable hydrology and possibly root penetration. In some cases where the topsoil has been lost due to erosion (dirt car parks) or soil stripped once weed control is established, possibly by scalping the site the original truncated soil profile may not need much preparation to receive the topsoil.

If rootstock or rhizomes will provide a major part of the translocated resilience, then bush regenerators are needed to 'upright' the rhizomes and prompt watering should follow to allow for maximum rhizome survivorship to be achieved. Stockpiling of the topsoil, particularly with high organic content (leaf litter and severed root mass) may promote composting and will possibly cause a loss of seed volume and rhizome death. The seed volume of stockpiled soils decays over weeks or months until a small fraction remains. 'Direct return' is the best approach where minimal stockpiling occurs to preserve the seed and rhizomes within the topsoil.