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Supplementary Materials for

Core commitments for field trials of gene drive organisms

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Disclosure statements
Table 1 with full references

Disclosure statements

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Table 1 with full references

Approach	Examples	Temporal Dynamics	Geographic Reach
Gene Drives(*16, 17*)	Linked-homing#(*2, 4, 18–21*), Medea (*22–24*), CleaveR(*25, 26*), TARE/TADE#(*27, 28*)	Self-propagating (low threshold)	Non-localized
	Translocations(*29, 30*), Underdominance#(*31*), UD^{MEL}*(*32*), Tethered Homing (*33*)	Majority wins* (high threshold)	Localized
	Daisy#(*34*), split-homing#(*1, 3, 35–37*), Homer (*38, 39*), killer rescue (*40, 41*)	Self-limiting (temporally limited)	
Non-Drives	SIT#(*42*), RIDL#(*43*), fsRIDL#(*44*), pgSIT#(*45*)		

Table 1. Characteristics and examples of engineered population control technologies. Two broad types of engineered approaches exist to modify populations—one requires gene drive and the other relies on non-drive technologies. Multiple examples of these types of systems exist, which can have varied temporal dynamics including: Self-propagating with a low threshold (predicted to spread from a small release), to majority wins with a high threshold (predicted to spread into a population only when the transgene is present at >50%), to self-limiting which are temporally limited (can only spread or persist in population for a short period). These systems can fall under two broad categories from non-localized (predicted to spread beyond boundaries) to localized (predicted to spread within a localized population). For more details on the various examples and terminology see associated references. #Can be used for population suppression in some forms. *While UD^{MEL} does have a high threshold it does not always fall under "majority wins" temporal dynamics. Abbreviations: Medea, maternal effect dominant embryonic arrest; TARE/TADE, toxin-antidote recessive embryo/toxin-antidote dominant embryo; CleaveR, Cleve and Rescue; UD^{MEL}, maternal effect lethal underdominance; SIT, sterile insect technique; RIDL, release of insects carrying a dominant lethal; fsRIDL, female-specific release of insects carrying a dominant lethal; pgSIT, precision-guided sterile insect technique.

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