program SUMMER

happy ← *summer*, *warm*,
warm ← *sunny*,
warm ← *summer*,
summer ←.

summer, *warm*, *sunny* are 0-ary relation symbols, i.e. propositional symbols.

A successful derivation of *happy*:
happy ⇒ *summer*, *warm* ⇒ *warm* ⇒ *summer* ⇒ □.

A failed derivation of *happy*
happy ⇒ *summer*, *warm* ⇒ *summer*, *sunny*