

TOWARDS A CLIMATE-SMART DYNAMIC COCOA CROPPING CALENDAR?

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THE COCOA YIELD GAP CHALLENGE

Typical Yield: 300-600 kg/ha

Potential Yield: 2000-3000* kg/ha

*experimented on farmer fields in Ghana

Yield Gap:
70-95%

This gap creates a valuable opportunity to address deforestation by improving the yield of existing farms.



GOOD AGRICULTURAL PRACTICES



Using climate information for
efficient farm management

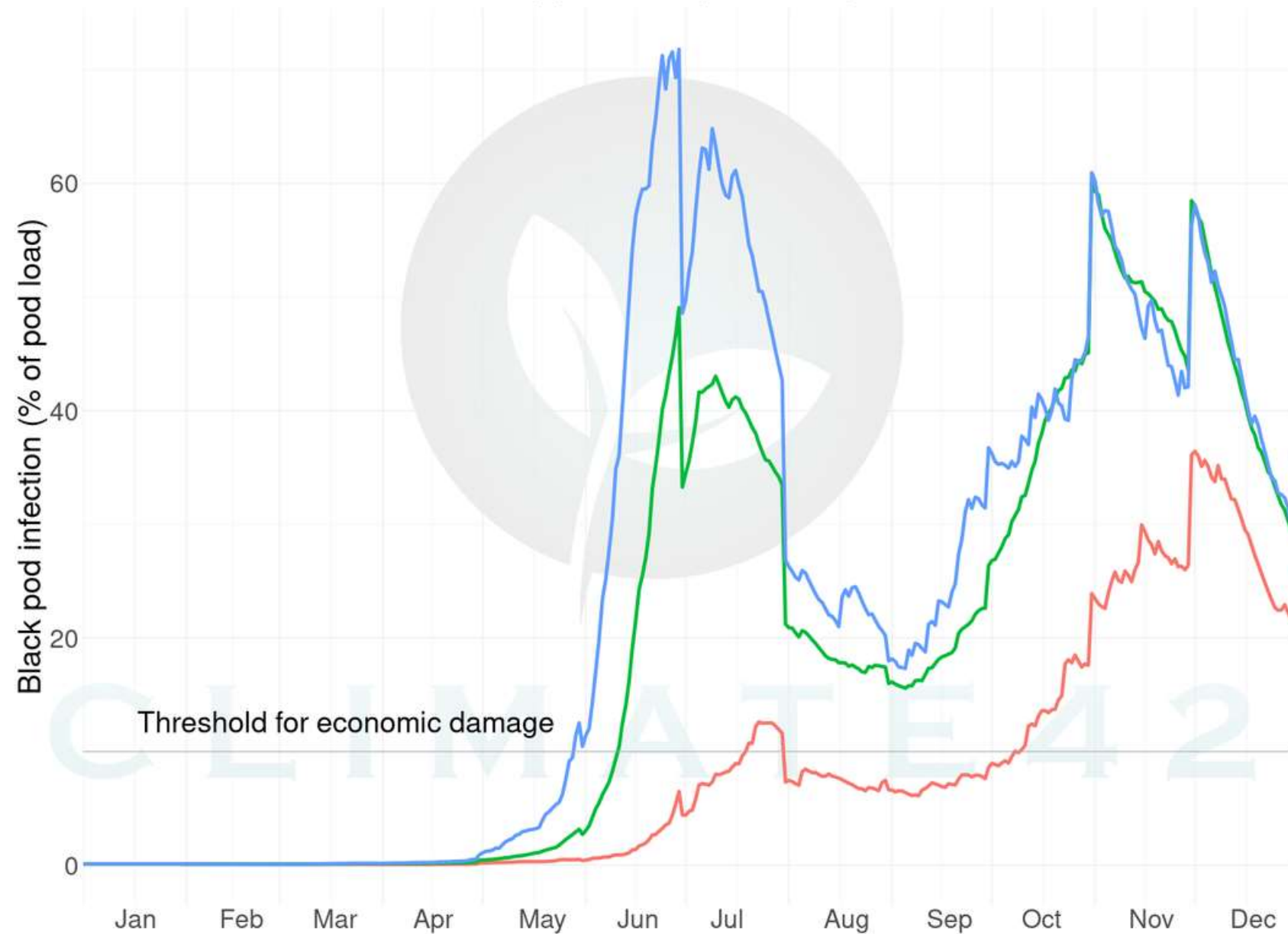
**BLACK POD
MANAGEMENT**

Using climate information for efficient farm management

BLACK POD MANAGEMENT

Uncontrolled evolution of *P. megakarya* in the field

- Dry year - LTA year - Wet year

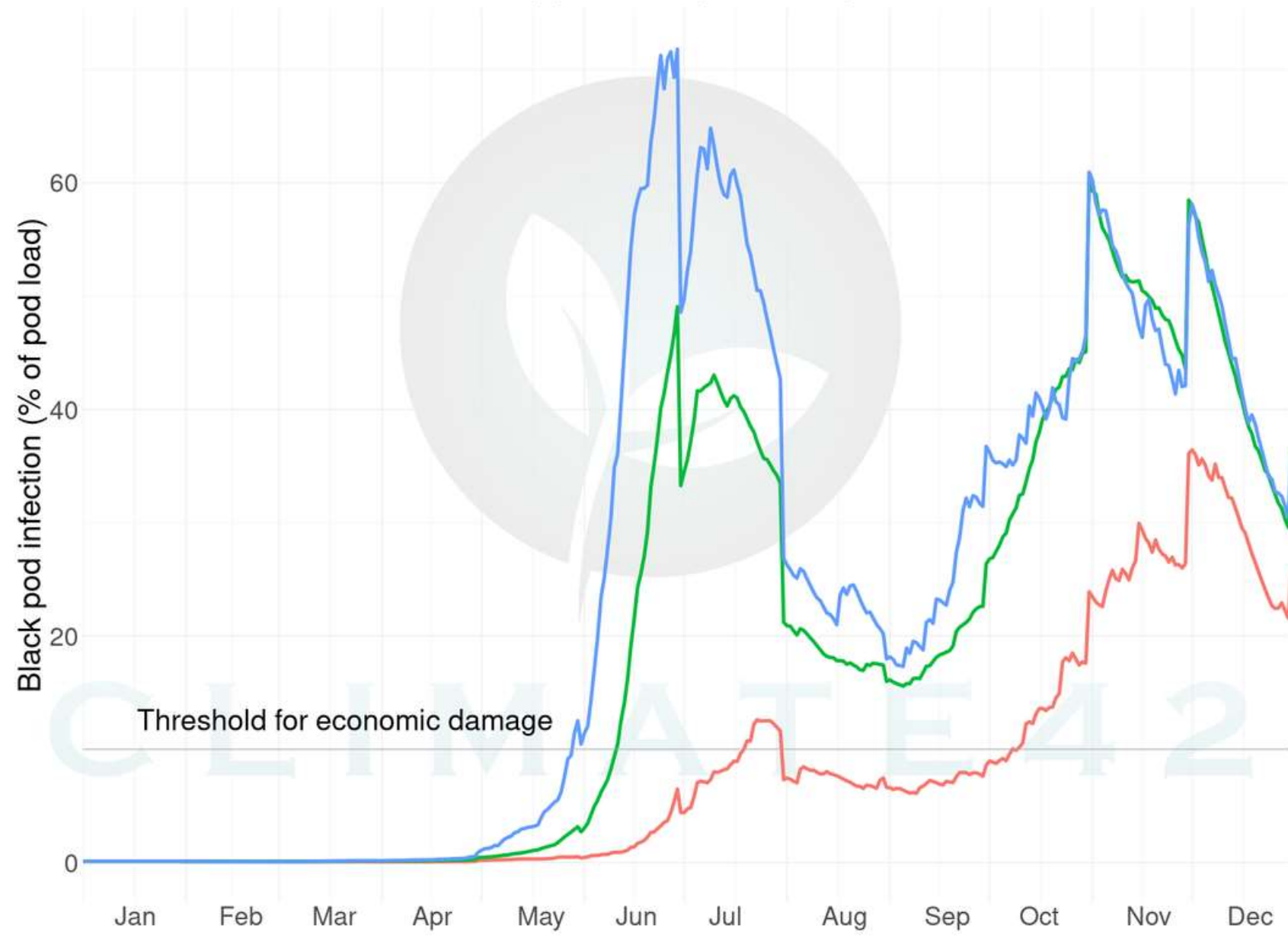


Using climate information for efficient farm management

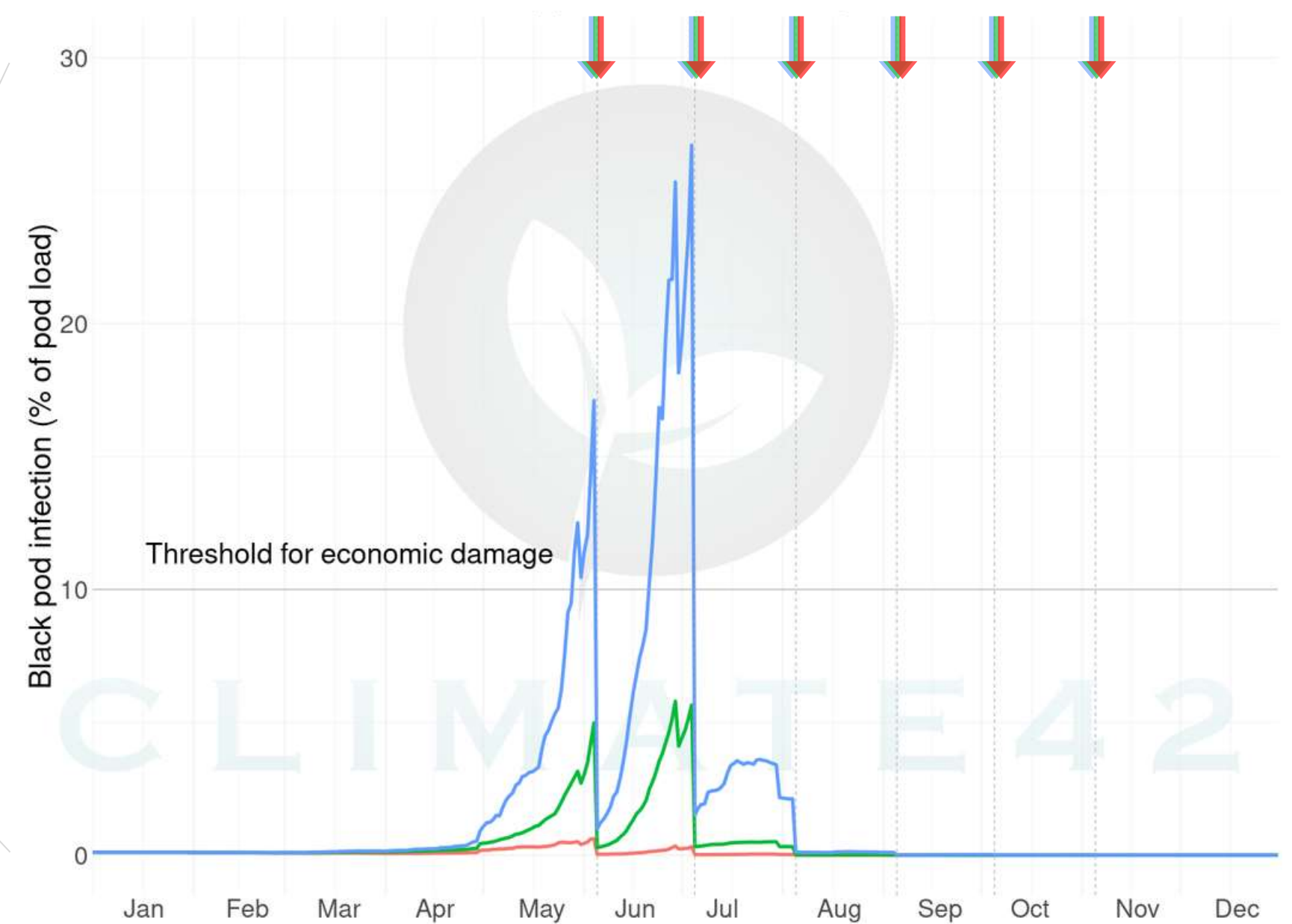
BLACK POD MANAGEMENT

Uncontrolled evolution of *P. megakarya* in the field

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Fixed monthly interventions: common recommendation

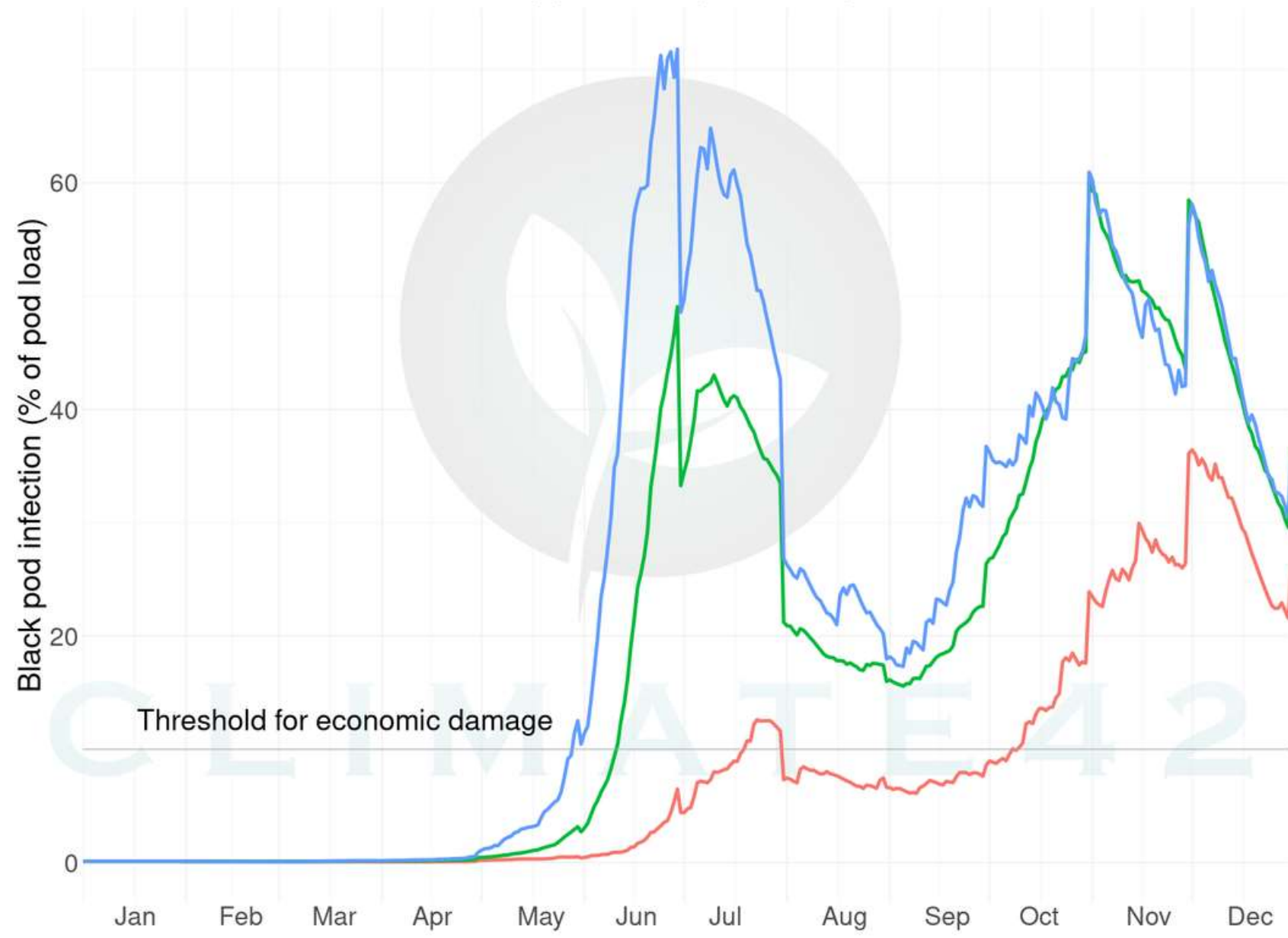


Using climate information for efficient farm management

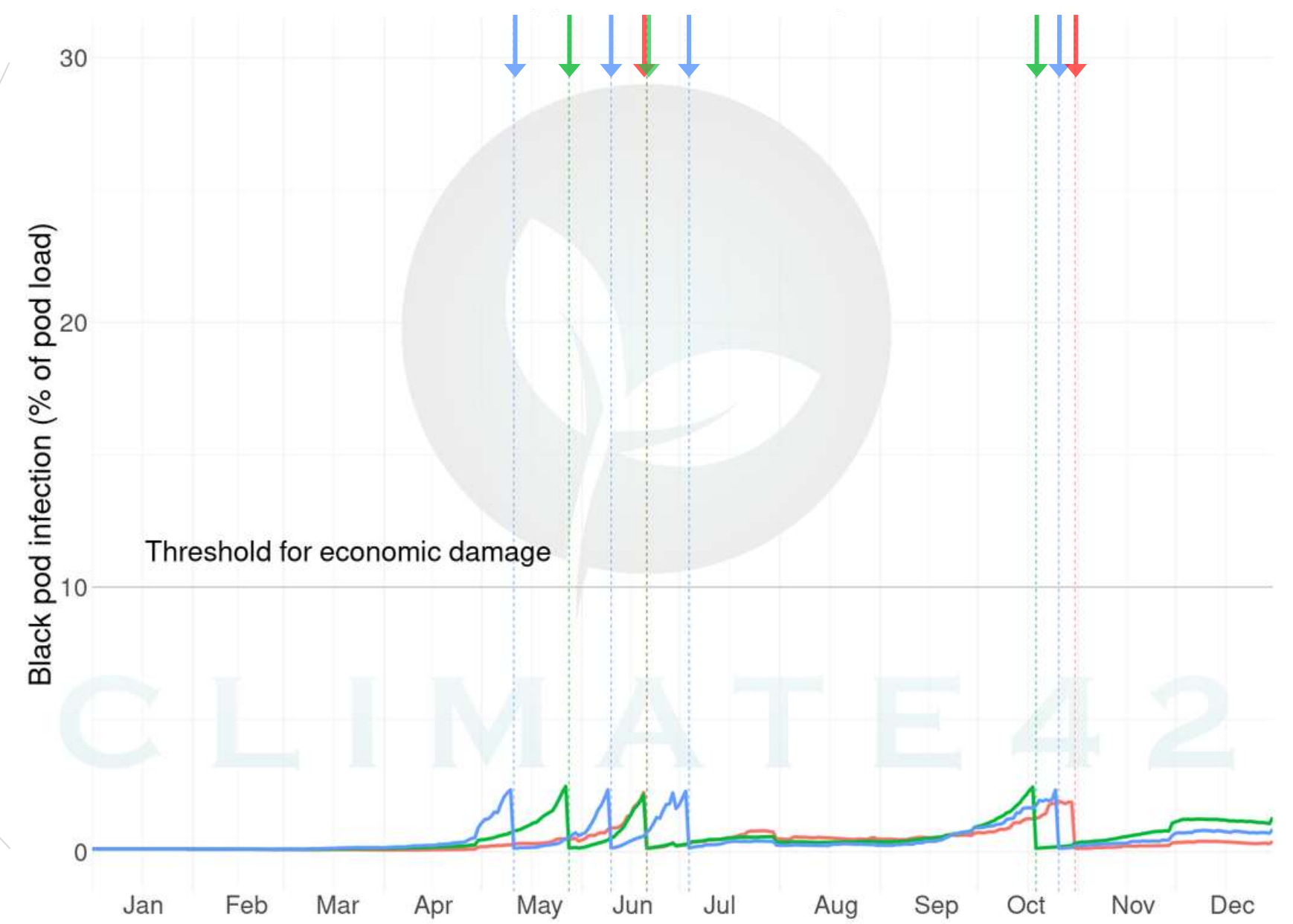
BLACK POD MANAGEMENT

Uncontrolled evolution of *P. megakarya* in the field

- Dry year - LTA year - Wet year



Spraying & removing pods every time the infection reaches 2.5% of the total pod



PRUNING



Climate suitability for pruning



possible, but not recommended

check your fields, you may need to prune

optimum timing

PRUNING



Climate suitability for pruning

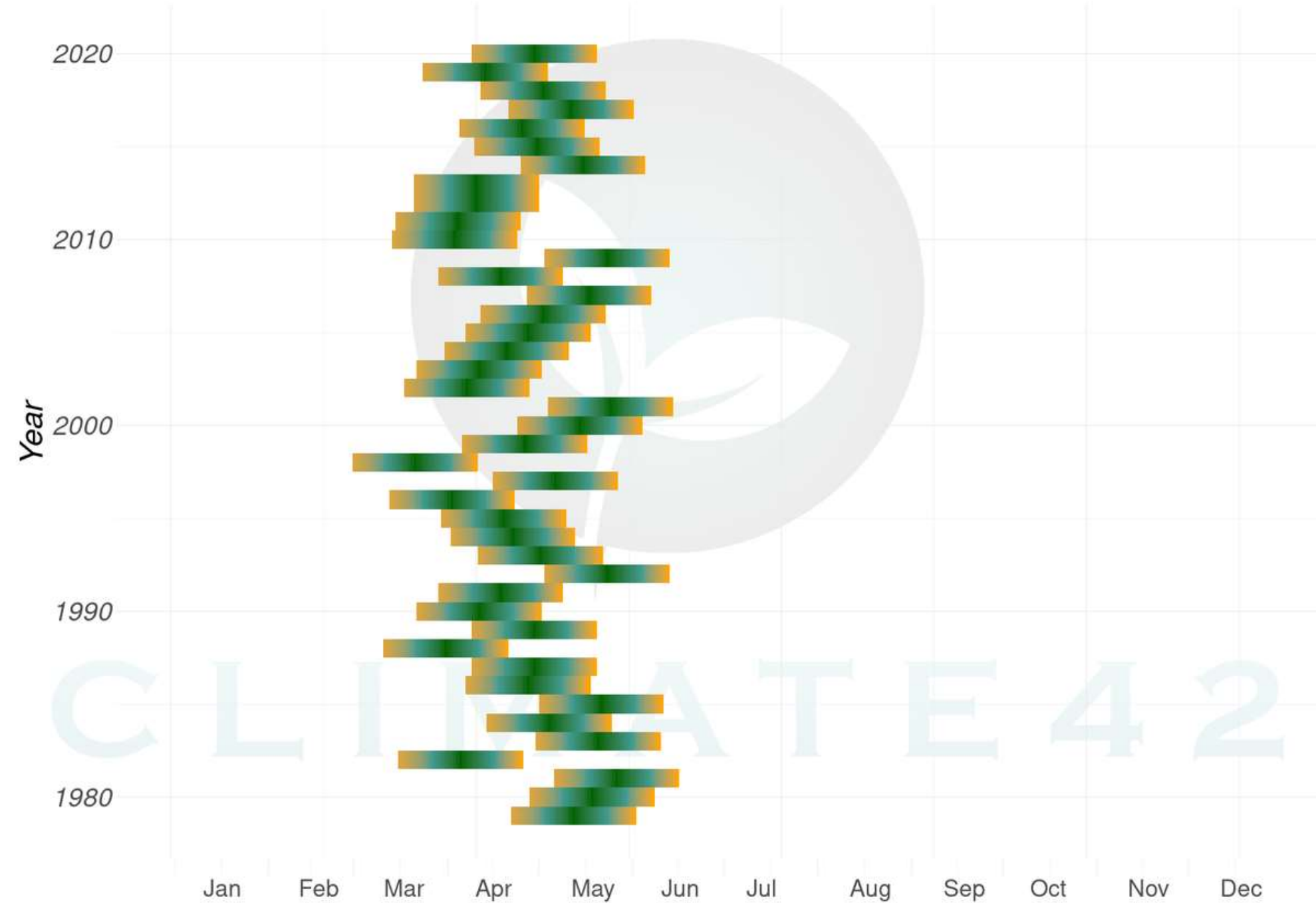


possible, but not recommended

check your fields, you may need to prune

optimum timing

Ogbaagba, Osun State, SW Nigeria



PRUNING



Climate suitability for pruning

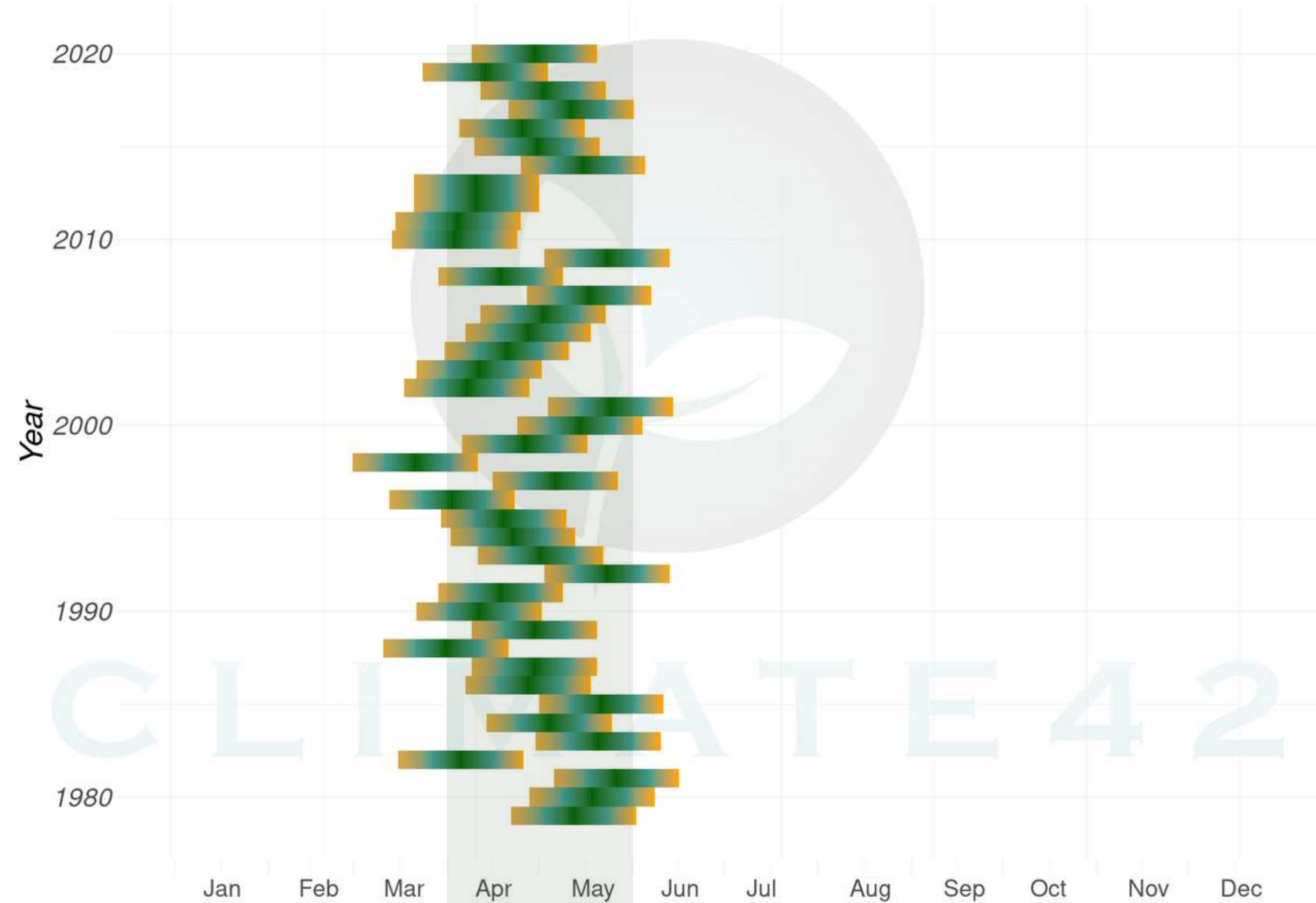


possible, but not recommended

check your fields, you may need to prune

optimum timing

Ogbaagba, Osun State, SW Nigeria



FERTILIZER APPLICATION

Climate suitability for fertilizer application



climate-limited

suboptimal

optimum timing

FERTILIZER APPLICATION

Climate suitability for fertilizer application



Bechem, Ahafo Region, hinterland Ghana



FERTILIZER APPLICATION

Climate suitability for fertilizer application



Bechem, Ahafo Region, hinterland Ghana



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Akim Oda, Eastern Region, coastal Ghana



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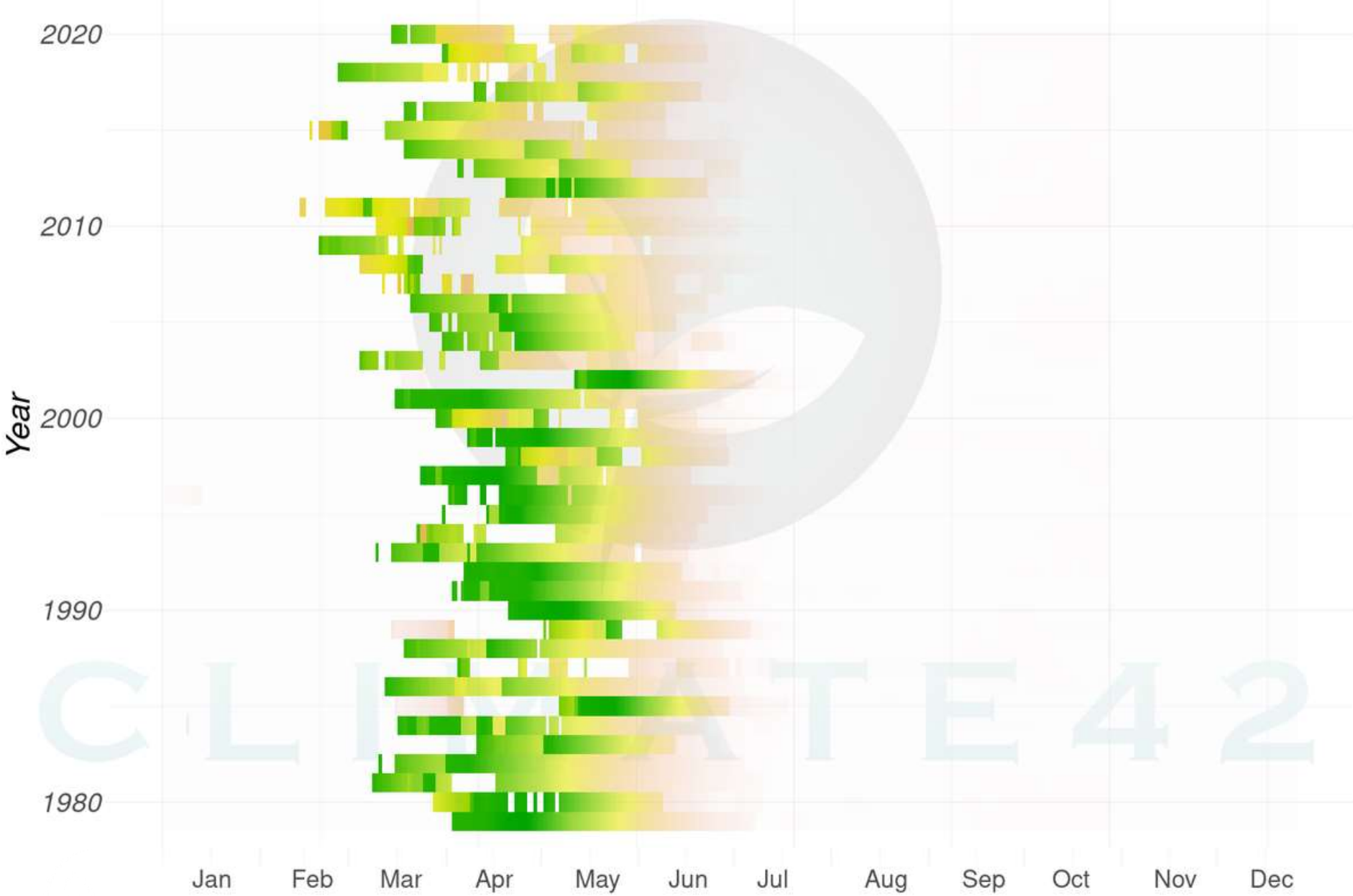


TRANSPLANTING

Climate suitability for transplanting



Agboville, Lagunes District, coastal Ivory Coast



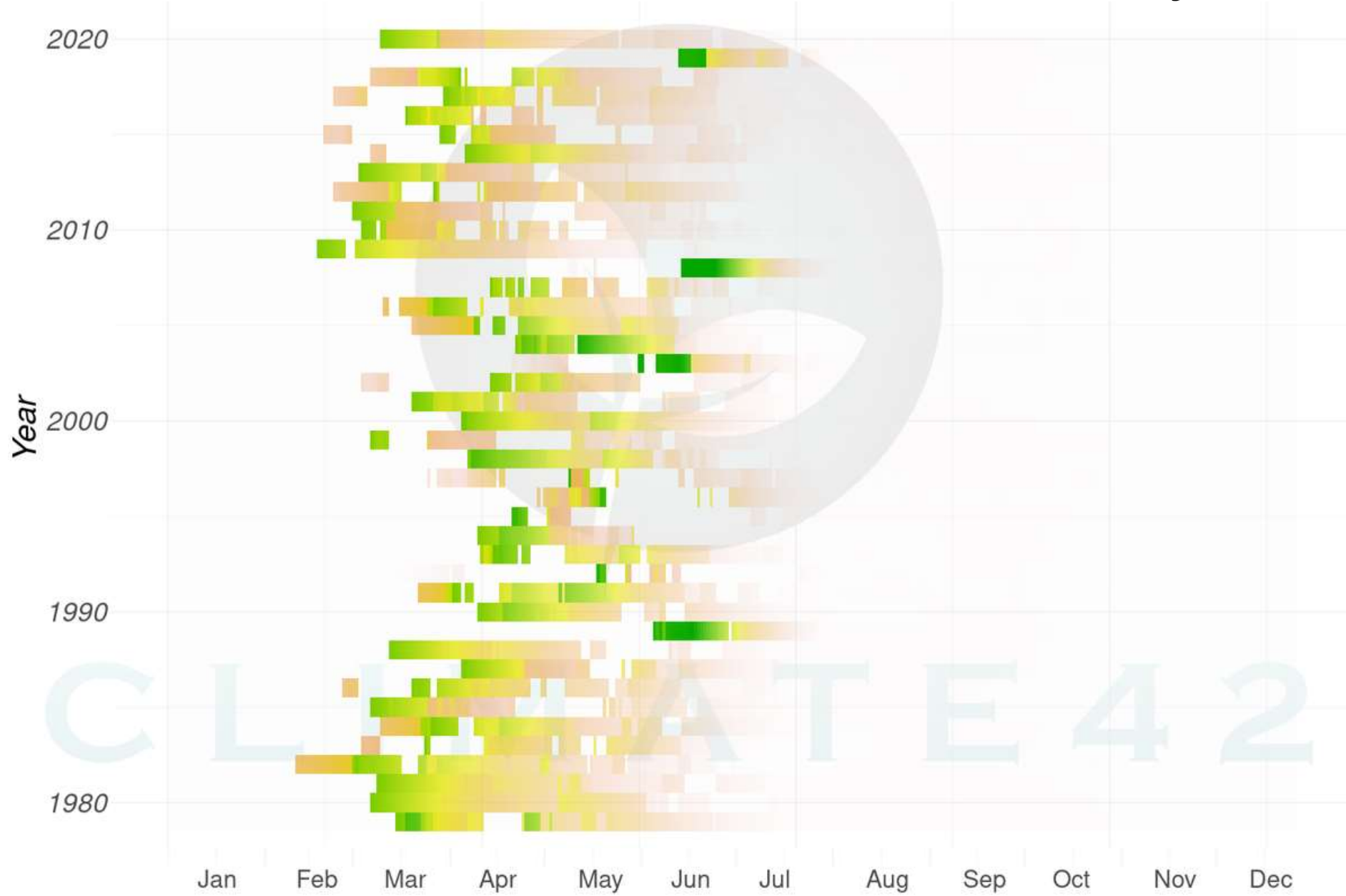
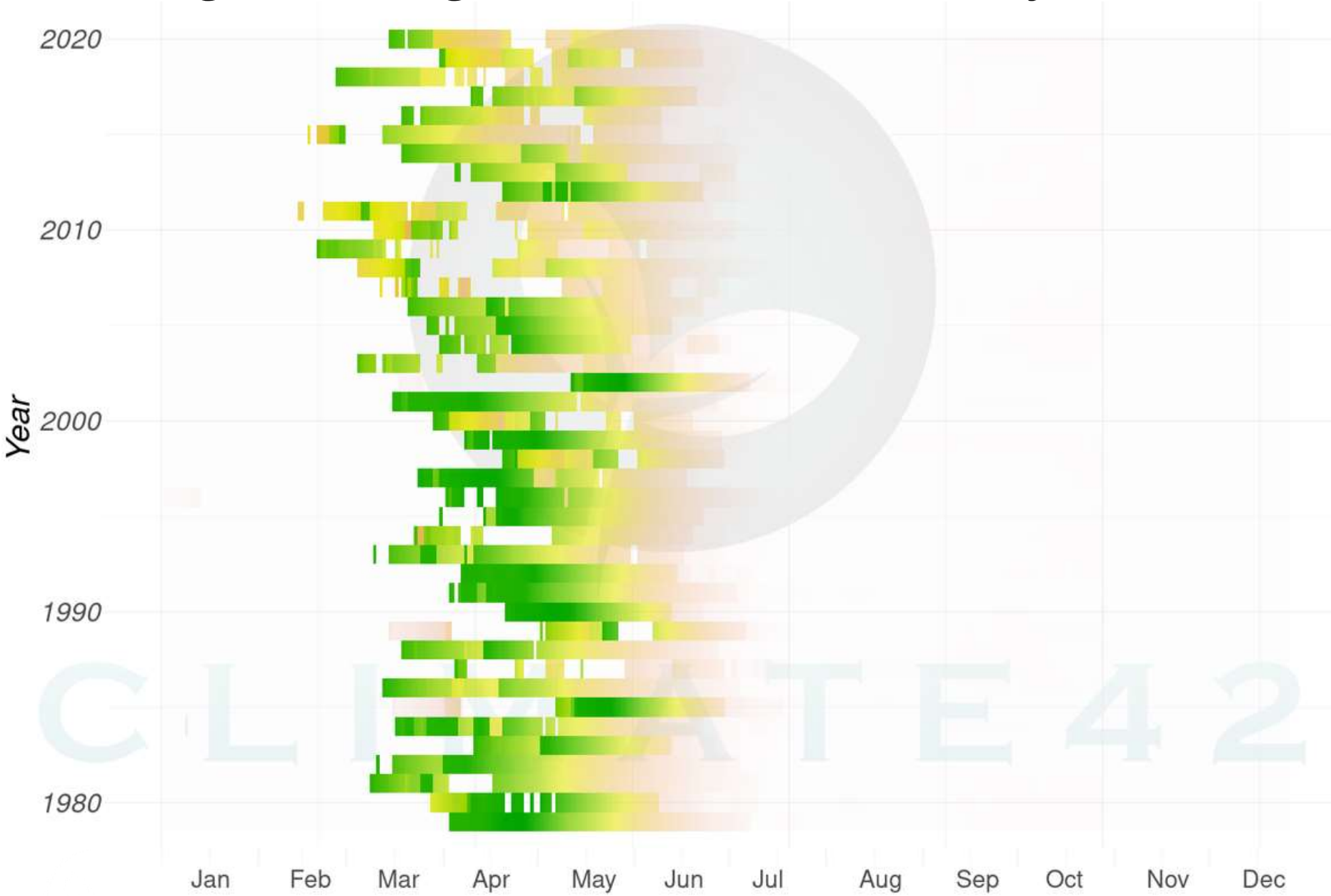
TRANSPLANTING

Climate suitability for transplanting



Agboville, Lagunes District, coastal Ivory Coast

Vavoua, Sassandra-Marahoué District, hinterland Ivory Coast



CLIMATE 42



PLANNING FARMER INTERVENTIONS

Status quo calendar: generalized, static
- unadapted to changes in climate

Climate42's Proposal

Dynamic, **climate-smart** cocoa cropping calendar

Our interdisciplinary approach combines climate science, agronomy, plant physiology & a solid knowledge of cocoa production systems

"Timely intervention = Efficient intervention"