



AUGMENTA
PRECISION AGRICULTURE · REDEFINED

AUGMENTA'S N VRA

AUGMENTA Agriculture Technologies



Imprecise Fertilization Risks



Agronomically

Inadequate fertilization will negatively affect yielding. However, excessive Nitrogen application and subsequent vegetative growth might also compromise productivity, **point (b)**, while it increases the risk of disease outbreaks and logging.



Financially

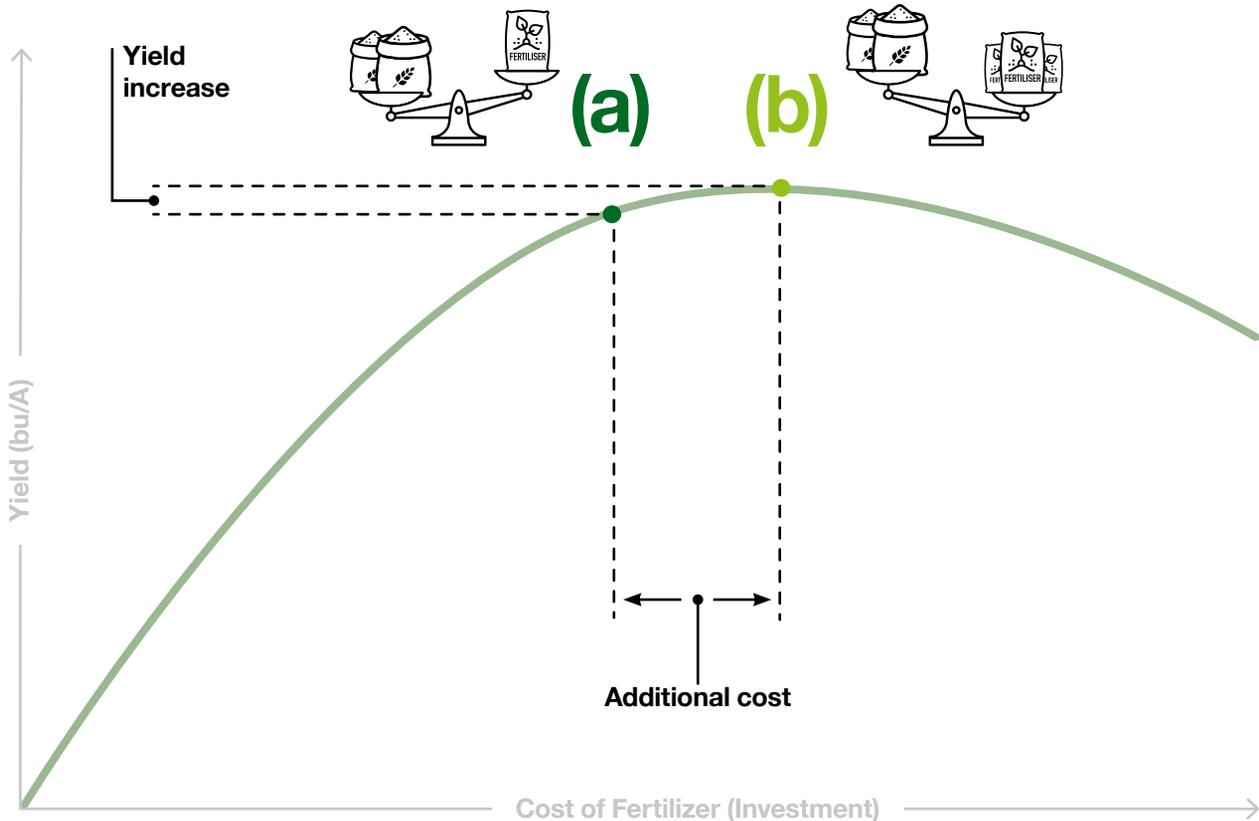
Beyond a certain point, yield increase does not justify the additional fertilization costs required, **point (a)**.



Environmentally

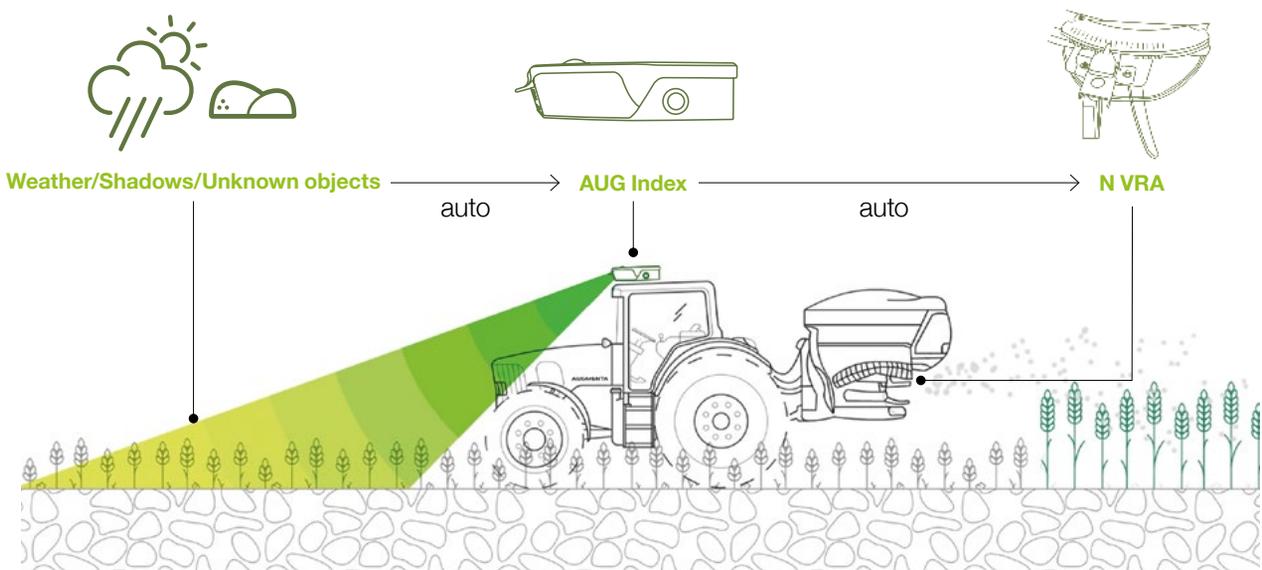
Excessive or untimely application has an increased environmental impact and might imperil sustainable crop production.

Yield vs Profit



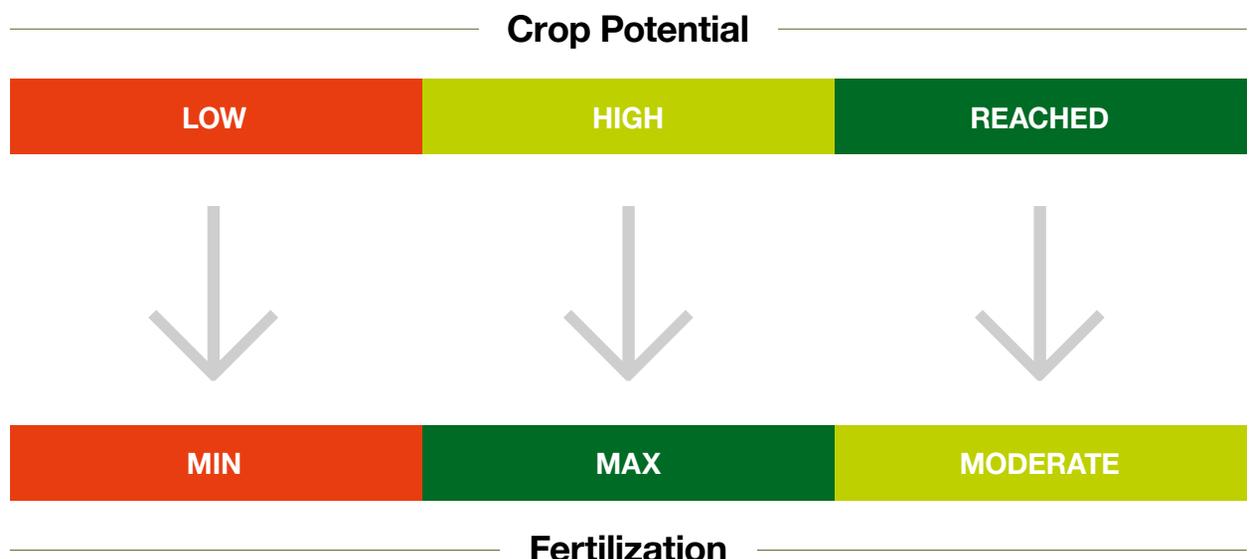
Our Approach

Augmenta Field Analyser is auto-calibrated through a variety of parameters recorded from Augmenta's unique setup, so as to consistently produce a vegetation index (AUG Index) map of a field under variable conditions. This map is then utilised for the realisation of a Variable Rate Application of Nitrogen fertilizer (N VRA).

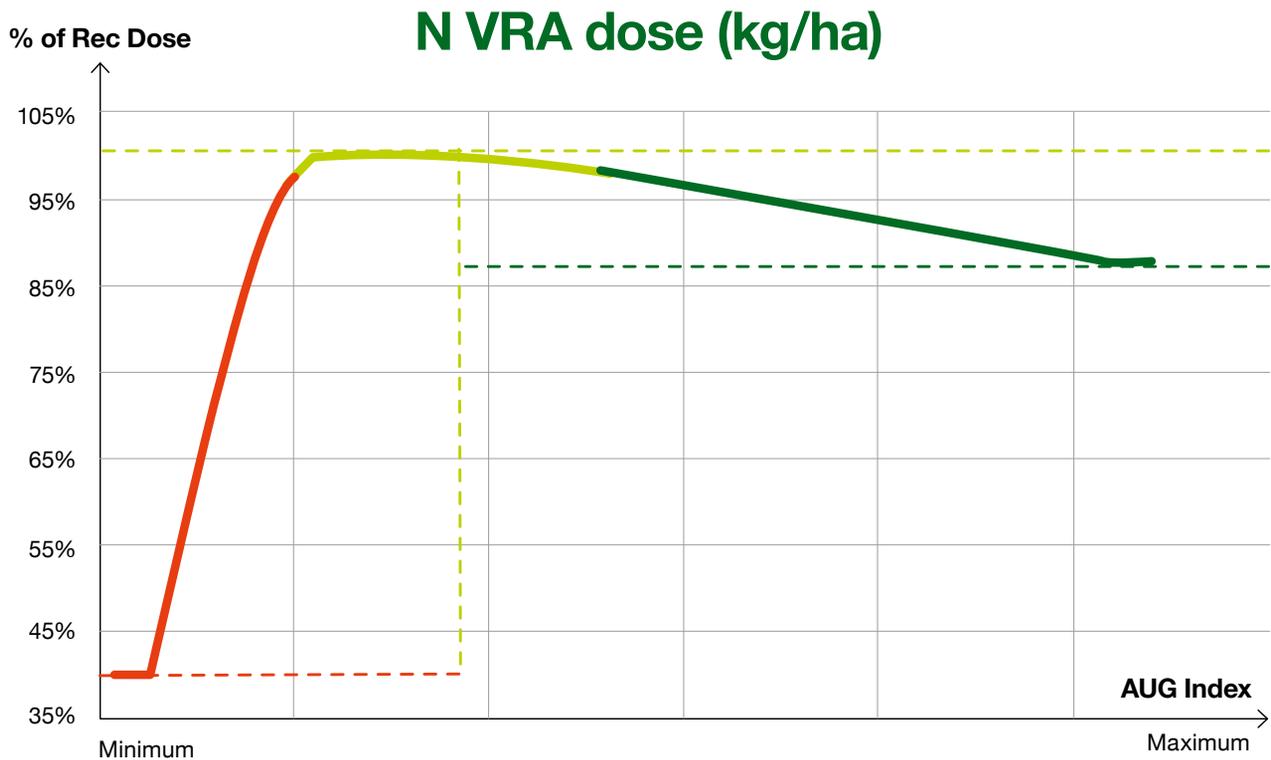


Dynamic N VRA Operation

During an N VRA, Augmenta's dynamic algorithm utilises the AUG Index map to assess and categorize in real time the productivity potential of different areas within the field so as to adjust the dose of fertiliser implemented. **Identification of the different types of areas is automatic and self-calibrating with no farmer actions required.**



N VRA Algorithm Rationale



→ Recommended Dose (Rec Dose) is defined by the farms agronomist or manager and is the MAXIMUM Dose to be implemented.

Low potential areas

where plant growth has been severely inhibited and are beyond the point of effective recovery. The amount of fertilizer will be decreased to a minimum to reduce cost.

High potential areas

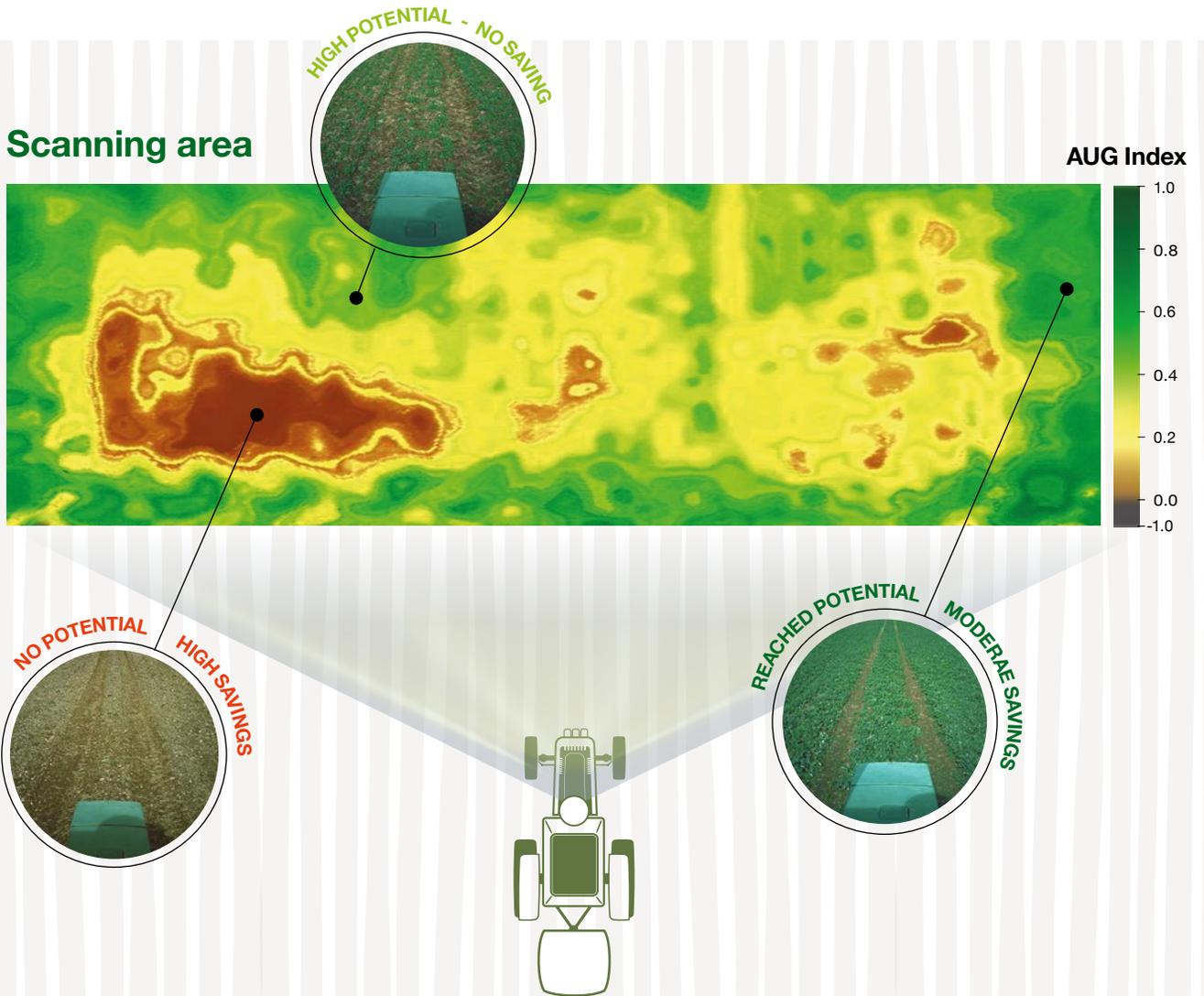
will benefit most by fertilization as it will allow the plants to reach their full potential. Thus, the maximum amount (close or equal to the recommended dose) will be applied to improve productivity.

Reached potential areas

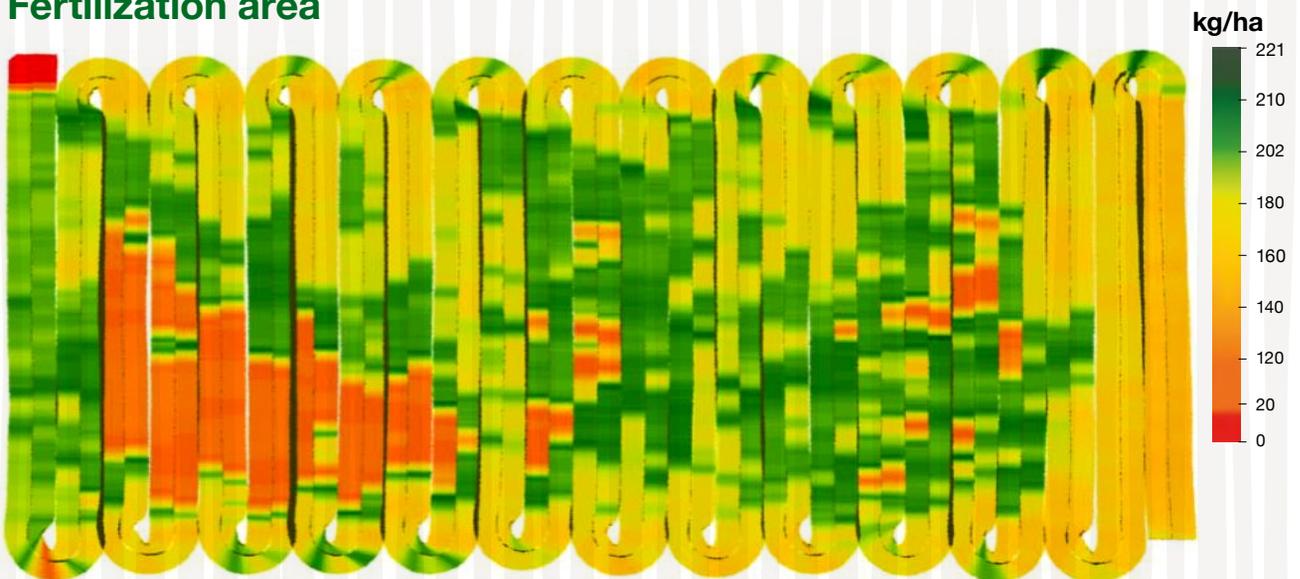
where plants are growing optimally, since their N needs have largely been met. A moderate reduction in the amount of fertilizer applied will occur to enhance productivity while minimizing cost.

N VRA Fertilizer Application

Scanning area



Fertilization area





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