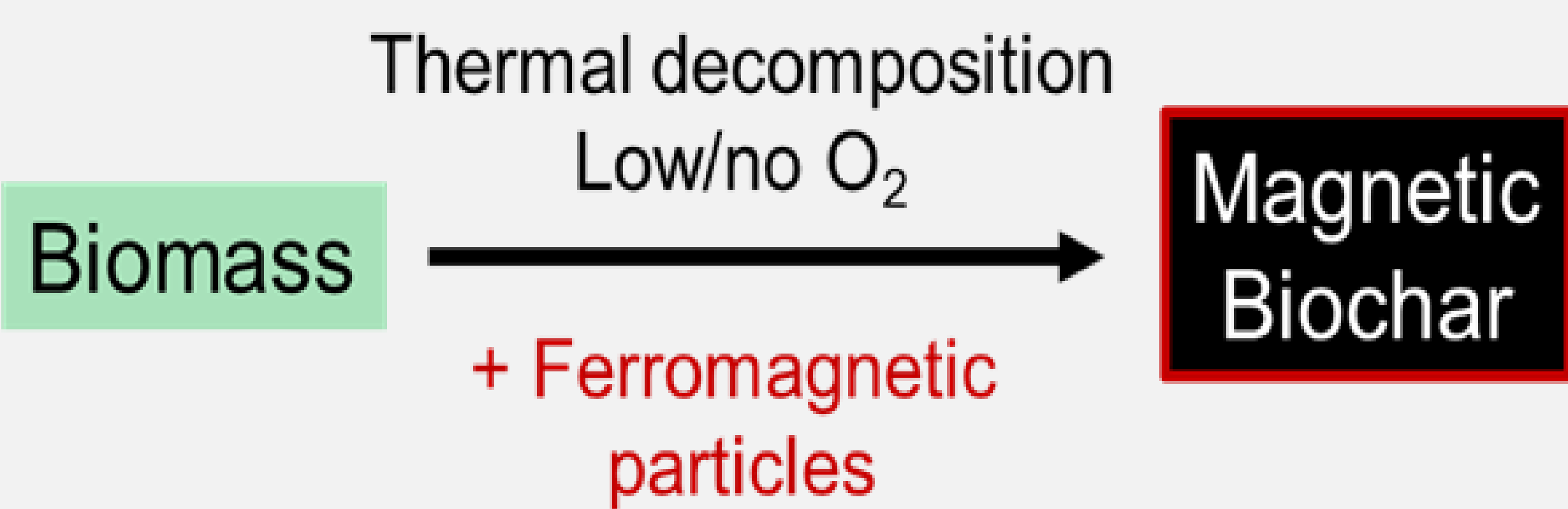




Developing magnetic biochar for agricultural soil remediation

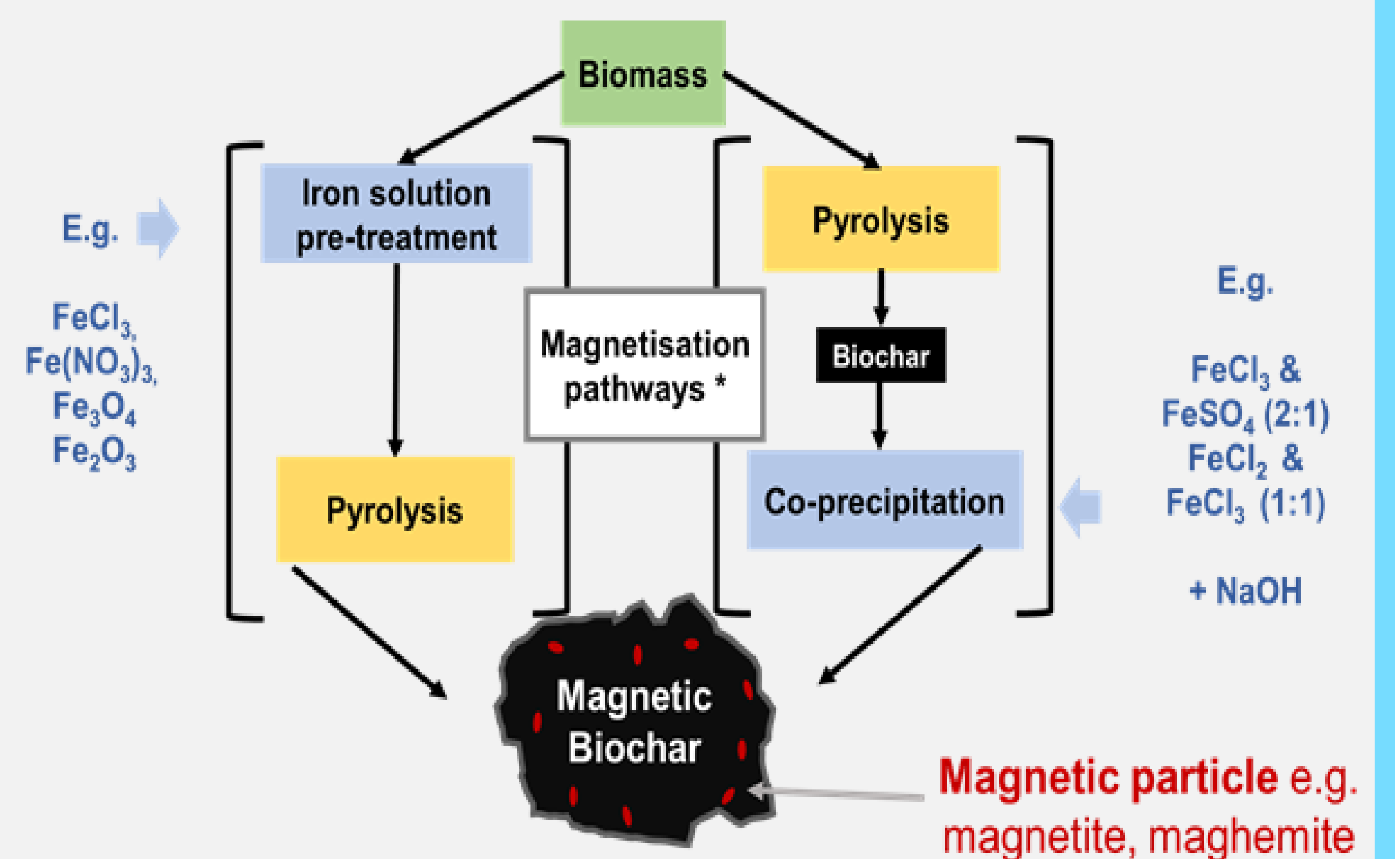
Max Gillingham, Rachel Gomes, Helen West & Becca Ferrari

What is magnetic biochar?



Cheap, sustainable adsorbent. Removable from media e.g. wastewater ... but soil?

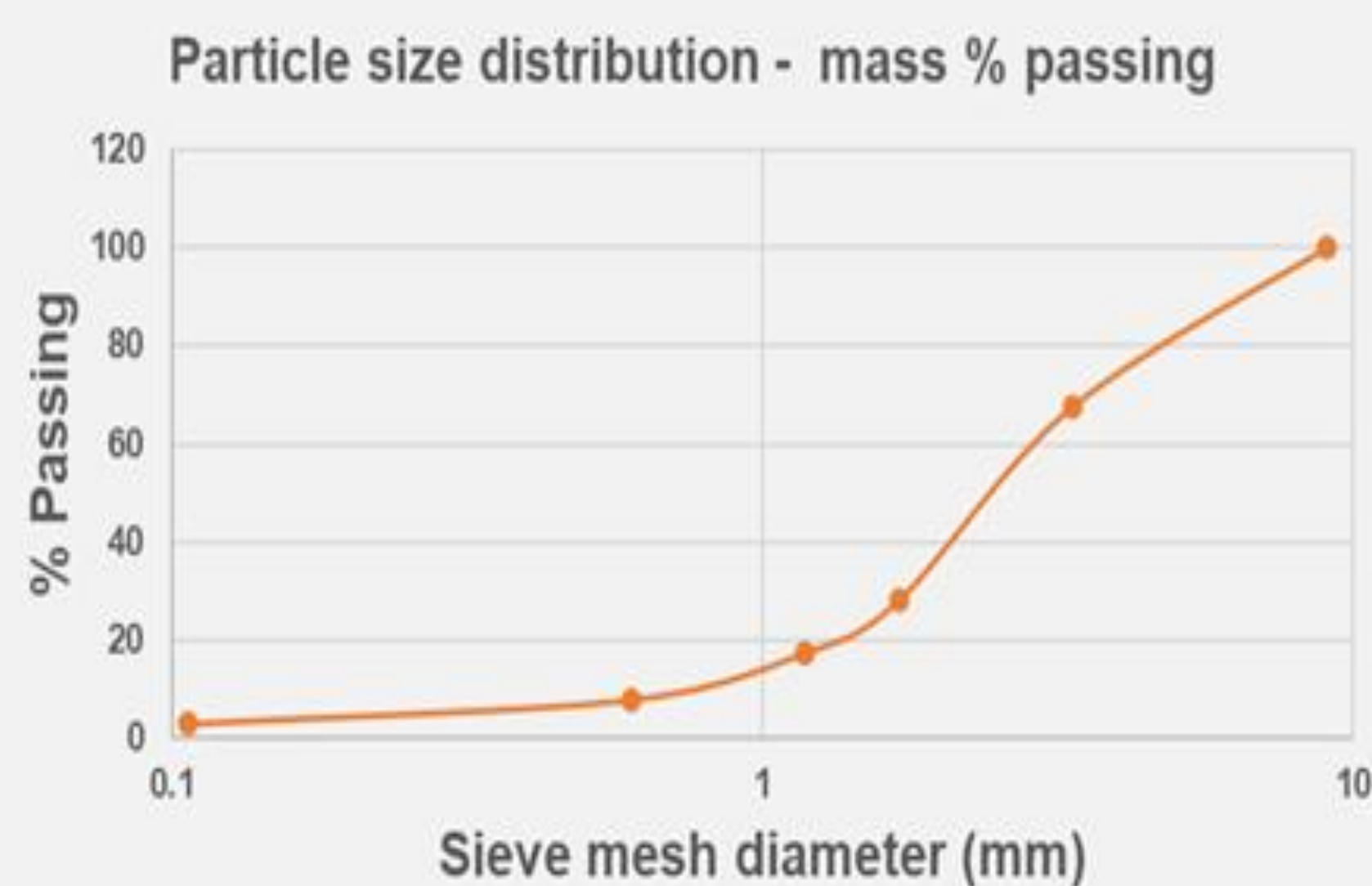
How is it made?



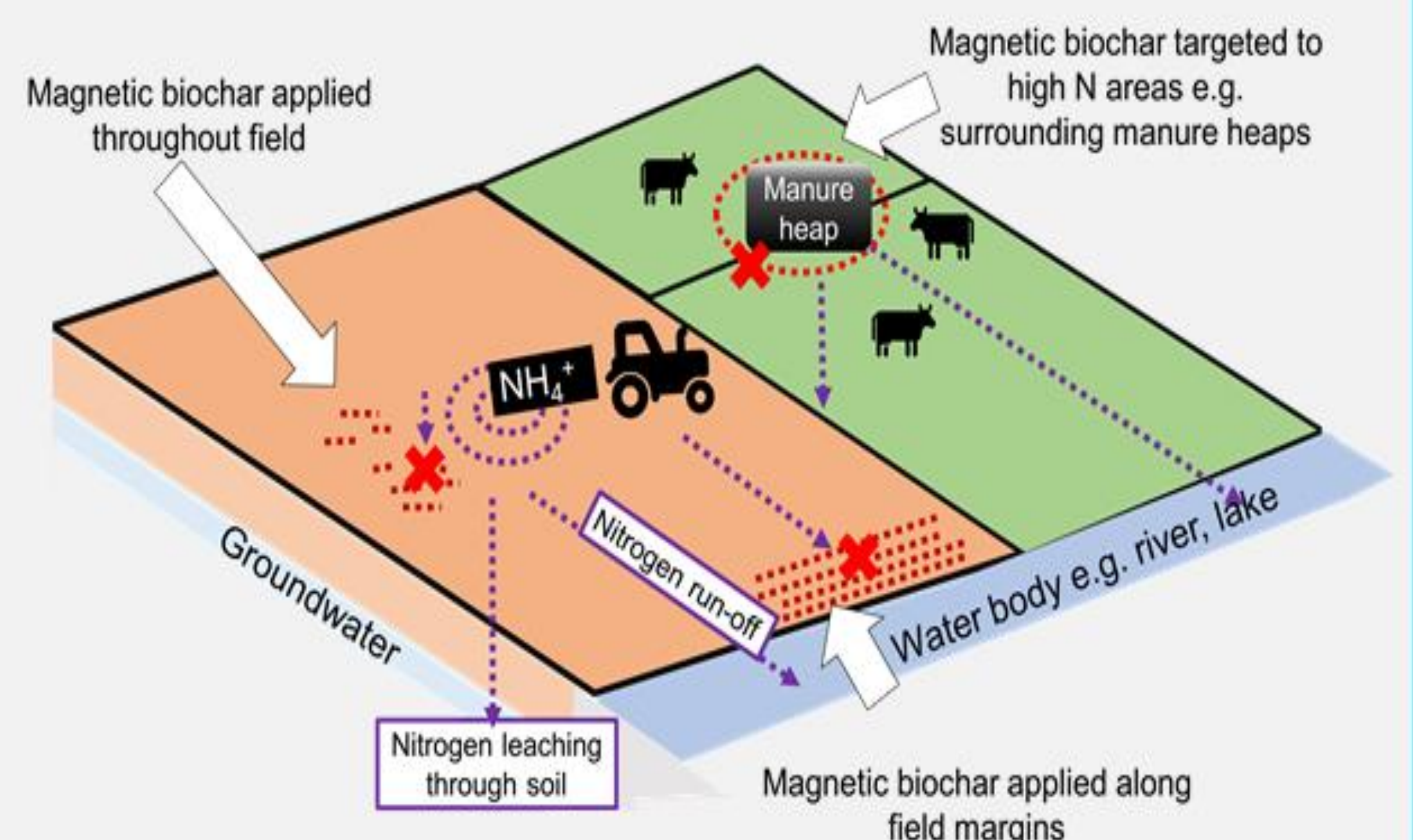
The particle size dilemma ...

Considering...

- Practical
- Efficient
- Safe



Proposed system – NH₄⁺ removal



Outcomes and plans

So far ...

Experiments – soon ...

- ✓ Review paper – *evaluating evidence towards applicability of proposed remediation system*
- ✓ Perspectives paper (in progress)
- ✓ Magnetisation (in progress)

- ❑ NH₄⁺ sorption mechanisms
- ❑ Characterisation – SEM-EDS, FTIR, sBET, XRD
- ❑ Removal from soil
- ❑ Efficacy & safety in soil