

Genetic Improvement of Photosynthetic Efficiency in Wheat

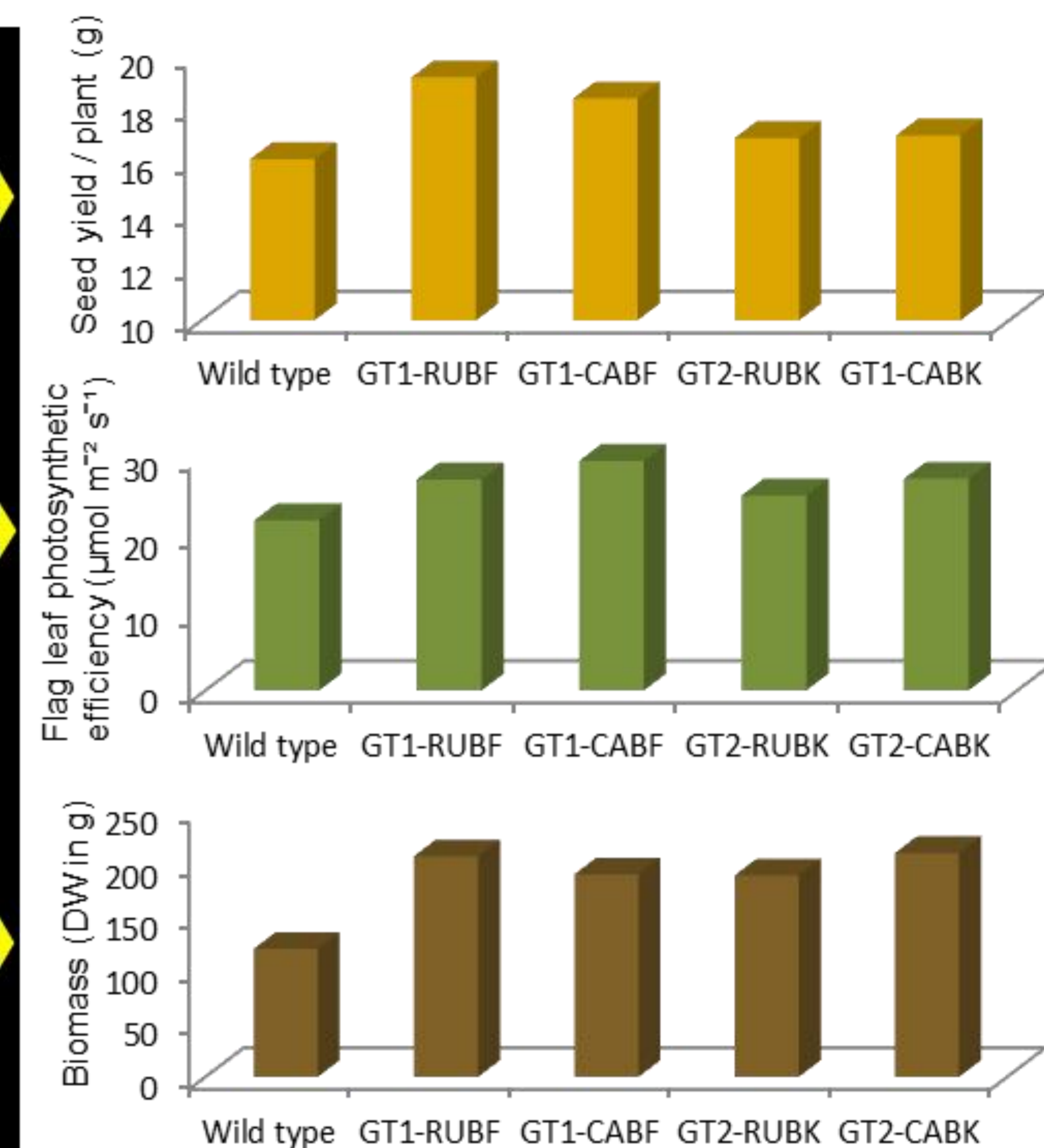
Objective: Identify and characterize new gene targets (GT) involved in photosynthetic efficiency

Outputs thus far: Identified new GT for photosynthetic efficiency in wheat; Observed improved photosynthetic under controlled greenhouse conditions (Figure)

Impact: New photosynthesis gene targets for improving performance and productivity in wheat

Deployment path: Validate the observations by phenotypic, physiological, molecular, functional and performance assessment of GT lines;
Screen wide germplasm for targeted discovery of natural alleles associated with GTs;
Development of prototypes with natural GT alleles for breeding improved Canadian wheat cultivars

Delivery date: Prototypes 2019-2020



Resources committed: ~1.5 million/5 years

CWA Team: NRC: Raju Datla, Vivijan Babic, Prakash Venglat, Daoquan Xiang, Rui Wen, Edwin Wang,
AAFC: Richard Cuthbert, Jas Singh, U of S: Curtis Pozniak,
CIMMYT: Matthew Reynolds, Gemma Molero, UK: Martin Parry

Collaborators: CIMMYT