



TO:



Šlechtitelů 27, Olomouc

Date:

11/11/2019

Quotation # 20191111

Automated high-precision screening of barley GWAS population under optimal and drought conditions

Ln	Qty	Description	Price
Barley GWAS Population Screening			
1.	1	<p>Pre-liminary phenotyping experiment for screening GWAS barley population for growth performance in control and drought conditions throughout development in PSI Research Center.</p> <p>Pre-liminary experiment designed for optimisation of cultivation, stress treatment and phenotyping conditions . Small scale experiment 4 pre-selected GWAS lines representing the extremes in the population and 2 control landrace lines, approximately 8 replicas, two treatments (control, drought). Cultivation in controlled environment for 1.5 months with phenotyping from lets say 10 day stage. Phenotyping to be done twice a week,potentially could be done twice a day – am, pm.</p> <p>Scored traits: 1) growth dynamics, morphology, color – by RGB top and 3 angle side view; 2) photosynthetic performance – by kinetic Chl fluorescence; 3) plant temperature /stomata conductance – by thermal imaging. In addition controlled watering regime will be maintained with regular scoring of plant weight prior and post watering. Acquired numeric and image-based data including the environmental data and watering/weighing information will be automatically stored, processed and available for further data analysis via PlantScreen Data Analyser SW tool.</p>	88,040.00

2	1	<p>1st round of final phenotyping experiment for screening 235 GWAS barley lines for growth performance in control and drought conditions throughout development in PSI Research Center.</p> <p>Growth performance and physiological performance of barley GWAS lines cultivated in control and drought conditions will be evaluated. Range of morpho-physiological traits will be assessed dynamically during growth and in response to progressive drought in barley lines grown in controlled and semi-controlled greenhouse conditions. Following 10 days cultivation in controlled environment plants will be transferred into greenhouse, pots will be registered and loaded into the PlantScreen Modular phenotyping system. Phenotyping will be done twice a week, optionally could be done twice a day (am, pm). Scored traits: 1) growth dynamics, morphology, color – by RGB top and 2 angle side view; 2) photosynthetic performance – by kinetic Chl fluorescence; 3) plant temperature /stomata conductance – by thermal imaging. In addition controlled watering regime will be maintained with regular scoring of plant weight prior and post watering. Acquired numeric and image-based data including the environmental data and watering/weighing information will be automatically stored, processed and available for further data analysis via PlantScreen Data Analyser SW tool. Acquired data will be processed online and basic data analysis and presentation will be provided at the end of the experimental run.</p>	317,129.00
3	1	<p>2nd round of final phenotyping experiment for screening 235 GWAS barley lines for growth performance in control and drought conditions throughout development in PSI Research Center.</p> <p>Duplication of the first round of phenotyping experiment. Experiment will be performed as described in point 2.</p>	214,741.00
TOTAL :			<u>619,910.00</u>

Delivery and Payment Terms:

- Prices are given in CZK and they exclude VAT.
- Country of origin: Czech Republic.
- This quote valid: 6 months.
- Delivery term: 2-4 weeks upon successful completion of the trial.
- PSI banking details for EUR:

Account Name: PSI (Photon Systems Instruments), spol. s r.o.

Account Number: 3714332

For PSI:

November 11th , 2019

Chief Scientist for Technical Support

PSI (Photon Systems Instruments), spol. s r.o.

Invoicing Address:

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