

SUMMARY: Plant-TEC List June 2020



Non-confidential list for non-subscribers to the PBL TEC Scheme. To discuss subscribing to the TEC Scheme and find out what your company is missing, please contact info@pbltechnology.com.

New or updated technologies are listed in RED. Technologies currently in the TEC exclusivity period are listed in BLUE.

TECH ID	TECHNOLOGY DESCRIPTION	RELEASE DATE	SOURCE ORGANISATION
CROP PERFORMANCE TECHNOLOGY			
DEVELOPMENT AND YIELD			
07.436	Gene controlling plant seed and organ size, and plant biomass.	07-Jan-08	UK
09.488	Control of Pod Shattering - Brassica Oilseeds germplasm.	29-Jun-10	UK
12.529	Increased seed size, plant growth and grain yield.	10-Oct-12	China
12.546	Gene for enhanced yield and nitrogen use.	26-Mar-13	UK / China
12.550	Gene for increased yield and abiotic stress tolerance.	02-Oct-13	Argentina
13.561	Increased seed size, plant growth and grain yield.	18-Sep-13	UK / China
14.584	Increased yield and stress tolerance.	09-Feb-15	Argentina
14.586	Increased seed size, plant growth and grain yield.	09-Feb-15	China
15.600	Enhanced yield and nitrogen use.	18-Jan-16	China
16.613	Genome editing for increasing yield in oil crops.	11-Jan-17	UK
16.617	Increasing yield and nutrient use in soybean and other legumes.	13-Mar-17	China
17.621	Increased seed size and grain yield (achieved by genome editing).	17-May-17	China
17.623	Genome editing target for increased yield in a wide range of crops including maize, wheat, soybean and brassica oilseeds.	05-Sep-17	China
17.625	Increased yield in a wide range of crops.	11-Jul-17	China
18.640	Maize lodging resistance	15-Oct-18	China
18.645	Increased grain size and yield	09-Sep-19	China
19.657	Enhanced Root Architecture	07-Oct-19	UK
19.658	Enhanced Yield and Disease Resistance.	01-Jun-20	China
19.659	Increased seed size and protein content	09-Sep-19	China
20.663	Control of grain size and number	30-Mar-20	China
STRESS RESISTANCE AND YIELD			
12.550	Gene for increased yield and abiotic stress tolerance.	02-Oct-13	Argentina
15.598	Drought tolerance in monocot and dicot plants.	10-Nov-15	China
18.634	Gene for increased abiotic and biotic stress tolerance and enhanced crop yield.	19-Apr-18	China
19.651	Enhanced photosynthesis and growth while preserving water status	02-Apr-19	UK

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CROP NUTRIENT USE			
12.546	Gene for enhanced yield and nitrogen use.	26-Mar-13	China
15.600	Enhanced yield and nitrogen use.	18-Jan-16	China
17.624	Enhanced crop nitrogen use with high yield.	20-Feb-18	China
CROP COMPOSITION AND QUALITY			
10.508	Oilseed Rape mutants with increased mono-unsaturated fatty acid content.	02-Mar-11	UK
12.533	High Phytase Wheat: novel wheat germplasm with seed phytase levels 5-8x the levels commonly seen in wheat.	11-May-12	Denmark
18.638	Novel Wheat Starch: mutant wheat lines with altered starch granule profile. Multiple high value applications.	15-Oct-18	UK
PEST / DISEASE RESISTANCE AND CROP PROTECTION TECHNOLOGY			
05.395	Virus resistance strategy to enable broad-spectrum resistance.	27-Sep-06	USA
07.425 07.426	Late blight resistance genes from wild potato species.	01-Mar-10	UK
17.630	Pathogen Resistant Plants.	19-Apr-18	Spain
16.618	Insect Resistance.	07-Oct-19	UK
19.653	Insect Resistance.	30-Mar-20	UK
ENABLING TECHNOLOGY			
PROMOTERS & SELECTABLE MARKERS			
04.345	High expression monocot promoter.	01-Jun-04	USA
06.414	Root-specific promoters for driving gene expression in monocots and dicots.	28-Feb-07	UK
SILENCING			
99.192	Tobacco rattle virus VIGS vectors for high throughput and rapid gene discovery.	18-Jun-03	UK
01.258	Geminivirus based gene function analysis with broad crop range targets.	24-Oct-05	USA
04.365	Modified TRV vector, with demonstrated facilitated cloning of tomato ESTs.	24-Oct-05	USA
EXPRESSION SYSTEMS			
99.194	Suppressors of post transcriptional gene silencing from plant viruses.	01-Nov-02	UK
05.386	Virus based system for expression of proteins in plants without production of infective viral particles.	30-May-06	UK
07.439	Mutagenesis of CPMV expression system results in heterologous protein production of up to 30% of total soluble protein.	07-Jan-08	UK

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GENERAL TECHNOLOGY			
14.580	Reversible nuclear male sterility system and germplasm for hybrid rice production.	03-Jun-14	China
16.603	CRISPR Regeneration Efficiency Boost for high efficient site-directed editing of plant genomes.	20-Jun-16	China
19.648	A step change in gene replacement techniques: high efficiency gene replacement technology.	19-Mar-19	China
19.650	Genome editing by virus infection	12-Jul-19	China
NATURAL PRODUCTS / BIOSTIMULANTS			
NON-TEC TECHNOLOGIES			
16.605	Plant activator protein.	19-Apr-18	China