

SUMMARY: Plant-TEC List November 2025



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
12.546	Gene for enhanced yield and nitrogen use	26-Mar-13	UK / China
13.561	Increased seed size, plant growth and grain yield	18-Sep-13	UK / China
16.613	Genome editing for increasing yield in oil crops	11-Jan-17	UK
17.625	Increased yield in a wide range of crops	11-Jul-17	China
19.657	Enhanced root architecture	07-Oct-19	UK
19.659	Increased seed size and protein content	09-Sep-19	China
20.663	Control of grain size and number	30-Mar-20	China
20.670	Increased nitrogen efficiency and increased crop yield	27-Oct-21	China
20.671	Stomatal density	14-Dec-20	UK
20.672	Increased seed number in grain crops	13-Jan-21	China
STRESS RESISTANCE AND YIELD			
19.651	Enhanced photosynthesis and growth while preserving water status	02-Apr-19	UK
20.665 23.700	Enhanced photosynthesis and growth while preserving water status	02-Mar-22	UK
24.710	Stress tolerant crops	25-Feb-25	UK
25.714	Biostimulant Seed Coating for Enhanced Yield	25-Nov-25	China
CROP NUTRIENT USE			
12.546	Gene for enhanced yield and nitrogen use	26-Mar-13	China
20.670	Increased nitrogen efficiency and increased crop yield	27-Oct-21	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
22.696	Wheat and barley starch with reduced B-granule content	12-Sep-23	UK
22.698	Increased starch granule size, by simple mutation	17-Apr-23	UK

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TECH ID	TECHNOLOGY DESCRIPTION	RELEASE DATE	SOURCE ORGANISATION
PEST / DISEASE RESISTANCE AND CROP PROTECTION TECHNOLOGY			
07.425 07.426	Late blight resistance genes from wild potato species	01-Mar-10	UK
21.684	A novel disease resistance mechanism	10-Jun-25	Denmark
21.689	Insect resistance	08-Dec-21	Canada
22.692	Novel, natural agent to control insects on plants	12-Oct-22	China
24.711	Breakthrough approach for broad plant pathogen resistance	25-Feb-25	China
PLANT BREEDING TECHNOLOGY			
21.691	Enhanced plant regeneration	08-Jun-22	China
24.704	Hybrid Seed Breeding and Production	25-Jun-24	China
ENABLING TECHNOLOGY			
PROMOTERS & SELECTABLE MARKERS			
04.345	High expression monocot promoter	01-Jun-04	USA
SILENCING			
21.689	Insect resistance	08-Dec-21	Canada
EXPRESSION SYSTEMS			
07.439	Mutagenesis of CPMV expression system results in heterologous protein production of up to 30% of total soluble protein	07-Jan-08	UK
PLANT TISSUE CULTURE			
21.678	Plant tissue culture	29-Nov-22	UK
21.691	Enhanced plant regeneration	08-Jun-22	China
ENVIRONMENTAL			
21.690	Biological phosphorous clean-up and recycling	08-Jun-22	China
CROP PROTECTION / BIOSTIMULANTS			
NON-TEC TECHNOLOGIES			
16.605	Plant activator protein	19-Apr-18	China
22.692	Novel, natural agent to control insects on plants	12-Oct-22	China
24.708	AOX inhibitors as plant protection agents	25-Jun-24	UK
24.710	A next-generation biostimulant	09-Sep-25	UK