

# SUMMARY: Plant-TEC List September 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](mailto: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
<b>CROP PERFORMANCE TECHNOLOGY</b>			
<b>DEVELOPMENT AND YIELD</b>			
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
<b>STRESS RESISTANCE AND YIELD</b>			
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
<b>CROP NUTRIENT USE</b>			
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
<b>CROP COMPOSITION AND QUALITY</b>			
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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<b>PEST / DISEASE RESISTANCE AND CROP PROTECTION TECHNOLOGY</b>			
07.425 07.426	Late blight resistance genes from wild potato species	01-Mar-10	UK
<b>21.684</b>	<b>A novel disease resistance mechanism</b>	<b>10-Jun-25</b>	<b>Denmark</b>
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
<b>PLANT BREEDING TECHNOLOGY</b>			
21.691	Enhanced plant regeneration	08-Jun-22	China
24.704	Hybrid Seed Breeding and Production	25-Jun-24	China
<b>ENABLING TECHNOLOGY</b>			
<b>PROMOTERS &amp; SELECTABLE MARKERS</b>			
04.345	High expression monocot promoter	01-Jun-04	USA
<b>SILENCING</b>			
21.689	Insect resistance	08-Dec-21	Canada
<b>EXPRESSION SYSTEMS</b>			
07.439	Mutagenesis of CPMV expression system results in heterologous protein production of up to 30% of total soluble protein	07-Jan-08	UK
<b>PLANT TISSUE CULTURE</b>			
21.678	Plant tissue culture	29-Nov-22	UK
21.691	Enhanced plant regeneration	08-Jun-22	China
<b>ENVIRONMENTAL</b>			
21.690	Biological phosphorous clean-up and recycling	08-Jun-22	China
<b>CROP PROTECTION / BIOSTIMULANTS</b>			
<b>NON-TEC TECHNOLOGIES</b>			
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
<b>24.710</b>	<b>A next-generation biostimulant</b>	<b>09-Sep-25</b>	<b>UK</b>