Supplementary materials

Table S1 Explained variance in principal component analysis based on all data from four years. Years × experimental variants equal 20.

Principal component	Eigenvalue	Variance contribution rate (%)	Cumulative variance contribution rate (%)
1	3.49155183	69.83	69.83
2	0.97548876	19.51	89.34
3	0.51673794	10.33	99.68
4	0.0155089	0.31	99.99
5	0.00071256	0.01	100.00

Table S2 Component matrix for principal component analysis based on all data from four years. Years × experimental variants equal 20.

Indicator variable	Principal component
	1
X_1	0.182358
X_2	0.443934
X_3	0.530042
X_4	0.454098
X_5	0.531525

Table S3 Comprehensive scores and ranking of the different treatments. Years × experimental variants equal 25.

Year	Treatment	Comprehensive score	ranking
2016	CK	-0.068	2
	M_{25}	-0.143	3
	M_{50}	-0.337	5
	M_{75}	0.062	1
	M_{100}	-0.232	4
2017	CK	-1.837	2
	M_{25}	-1.729	1
	M_{50}	-2.019	4
	M_{75}	-2.053	5
	M_{100}	-2.011	3
2018	CK	1.565	2
	M_{25}	1.547	3
	M_{50}	1.489	4
	M_{75}	1.762	1
	M_{100}	1.204	5
2019	CK	0.187	5
	M_{25}	0.449	4
	M_{50}	0.725	2
	M_{75}	0.863	1
	M_{100}	0.576	3
Average across years	CK	-0.038	4
	M_{25}	0.031	2
	M_{50}	-0.036	3
	M_{75}	0.159	1
	M_{100}	-0.116	5