

(a) Emulators trained on all available data

Model	Wheat, Europe			Rice, South Asia			Maize, North America			Soybeans, Latin America		
Approach	a	b	c	a	b	c	a	b	c	a	b	c
GEPIC	1.334	1.267	1.215	3.982	3.037	2.790	10.099	9.058	9.360	3.485	2.550	2.321
LPJ-GUESS	2.242	2.254	2.213	4.033	2.163	3.729	5.870	5.466	5.359	2.934	3.025	2.653
LPJmL	1.777	1.768	1.596	2.582	2.371	1.786	6.923	5.494	5.846	4.898	3.870	4.709
pDSSAT*	5.363	3.196	3.550	7.758	3.606	4.190	12.218	6.129	6.149	3.427	3.662	3.500
PEGASUS	6.061	4.908	4.937	NA	NA	NA	8.762	8.533	8.496	7.773	5.439	5.876

(b) Emulators trained on RCP8.5 only

Model	Wheat, Europe			Rice, South Asia			Maize, North America			Soybeans, Latin America		
Approach	a	b	c	a	b	c	a	b	c	a	b	c
GEPIC	2.159	1.309	1.396	6.941	3.541	3.266	19.091	9.779	9.664	5.001	2.654	2.858
LPJ-GUESS	2.579	2.449	2.486	5.026	2.656	4.517	10.034	7.083	6.866	3.749	3.355	2.691
LPJmL	3.814	2.293	2.415	4.247	3.040	2.409	11.954	5.838	5.950	5.869	4.607	5.084
pDSSAT	NA	4.053	4.392	NA	4.230	4.971	NA	8.290	7.984	NA	4.246	4.809
PEGASUS	8.125	5.167	5.324	NA	NA	NA	14.097	11.801	11.825	11.542	6.413	7.182