



Table S1. Proposed references of almond leaf macro- and micronutrient content, expressed as minimum and maximum values, for foliar diagnostics at 90 and 120 DAFB of the main intermediate and late-bloom cultivars recently introduced in central Italy.

90 DAFB											
Cultivar	N % DW	C % DW	P % DW	K % DW	Ca % DW	Mg % DW	Fe $\mu\text{g g}^{-1}$ DW	Mn $\mu\text{g g}^{-1}$ DW	B $\mu\text{g g}^{-1}$ DW	Cu $\mu\text{g g}^{-1}$ DW	Zn $\mu\text{g g}^{-1}$ DW
'Genco'	1.90-3.25	42.80-44.30	0.05-0.10	0.75-1.05	0.90-1.70	0.20-0.25	65.80-100.00	16.70-20.00	9.00-55.00	6.00-22.00	29.00-50.00
'Guara'	1.60-2.60	42.20-44.40	0.06-0.10	0.70-1.00	0.85-1.20	0.20-0.26	50.00-82.00	17.00-23.00	10.50-36.85	2.80-15.50	10.00-32.50
'Lauranne®'											
'Avijor'	1.80-2.90	42.90-44.50	0.07-0.12	0.80-1.00	0.90-1.10	0.15-0.30	47.0-102.00	19.00-25.00	16.10-50.00	1.90-16.00	32.00-61.00
'Penta®'	1.80-2.50	42.45-44.35	0.06-0.10	0.80-1.10	0.70-1.25	0.20-0.22	50.60-58.00	17.80-30.50	17.50-52.50	2.00-17.00	16.20-50.00
'Soleta'	1.60-2.20	40.75-45.30	0.07-0.10	0.70-1.30	0.80-1.40	0.20-0.30	67.60-30.00	12.00-22.30	28.00-68.00	3.00-15.00	8.00-60.00
'Supernova'	1.60-2.20	41.70-43.70	0.06-0.10	0.75-1.30	0.90-1.75	0.20-0.30	50.60-132.00	16.50-25.30	22.50-36.10	3.50-15.20	34.30-83.00
'Tuono'	2.00-2.90	42.00-44.50	0.06-0.10	0.80-1.00	1.00-1.25	0.20-0.25	54.00-118.00	21.0-26.50	8.50-18.70	8.70-16.00	27.00-50.00
'Vialfas'	2.40-3.50	43.30-45.40	0.07-0.12	0.90-1.00	0.70-1.25	0.20-0.30	70.00-80.00	19.30-30.40	14.00-55.00	5.60-20.00	18.00-60.50
120 DAFB											
Cultivar	N % DW	C % DW	P % DW	K % DW	Ca % DW	Mg % DW	Fe $\mu\text{g g}^{-1}$ DW	Mn $\mu\text{g g}^{-1}$ DW	B $\mu\text{g g}^{-1}$ DW	Cu $\mu\text{g g}^{-1}$ DW	Zn $\mu\text{g g}^{-1}$ DW
'Genco'	1.75-3.10	44.40-45.10	0.06-0.10	0.25-1.75	1.45-1.80	0.20-0.30	55.00-80.00	12.90-20.50	14.50-40.50	18.00-40.00	11.20-43.50
'Guara'	2.10-2.90	43.60-45.50	0.08-0.10	0.20-1.10	1.40-1.90	0.20-0.30	47.00-85.00	15.20-20.60	12.00-20.00	18.50-46.50	8.50-14.20
'Lauranne®'											
'Avijor'	2.30-2.60	43.30-46.70	0.10-0.12	0.30-2.20	1.10-1.70	0.20-0.30	65.00-95.00	16.50-23.50	12.80-32.00	18.50-30.00	5.50-13.50
'Penta®'	2.15-3.00	42.70-45.90	0.08-0.10	0.40-1.25	1.30-1.90	0.20-0.35	78.00-125.00	17.00-20.00	15.00-30.00	12.00-30.50	4.50-22.20
'Soleta'	1.60-2.90	41.90-46.10	0.08-0.10	0.20-1.30	1.20-1.45	0.20-0.35	47.00-100.00	10.00-15.00	15.00-21.50	13.50-25.00	9.00-13.50
'Supernova'	1.75-3.00	43.50-44.80	0.07-0.12	0.40-1.25	1.10-1.50	0.20-0.25	57.00-80.00	15.00-18.00	12.50-21.50	11.50-20.00	9.00-33.50
'Tuono'	2.00-3.10	43.00-45.50	0.08-0.10	0.40-1.10	1.15-1.50	0.18-0.25	75.00-120.00	17.50-21.20	10.50-25.50	10.00-18.00	8.50-40.00
'Vialfas'	2.50-3.50	44.10-45.90	0.08-0.10	0.25-1.65	1.45-1.80	0.20-0.25	67.00-90.00	20.30-24.20	18.00-43.00	14.00-45.00	7.50-15.00

Table S2. Pearson correlation matrix between the analyzed variables. Data from leaf diagnostics, content of total chlorophyll, flavonol, anthocyanin and nitrogen balance index and leaf biometrics recorded at 90 DAFB were compared. The correlation between the variables is highlighted in bold. Significance is expressed as *, **, ***, at $p < 0.05$, 0.01, 0.001, respectively. (Level of correlation: 1.0–0.8 very high; 0.8–0.6 high; 0.6–0.4, moderate; 0.4–0.2, low; 0.2–0: negligible correlation).

Variables	N	C	P	K	Ca	Mg	Fe	Mn	B	Cu	Zn	Chl	Flav	Anth	NBI	LDMC	SLA
N	1																
C	-0.282	1															
P	0.540**	-0.450	1														
K	-0.382	-0.034	-0.539**	1													
Ca	-0.593**	0.422	-0.768***	0.576**	1												
Mg	-0.109	-0.237	0.228	0.291	0.302	1											
Fe	0.192	-0.511**	0.200	0.172	0.131	0.585**	1										
Mn	-0.087	0.662***	-0.310	0.032	0.329	-0.029	-0.227	1									
B	-0.607**	0.741***	-0.505**	0.388	0.523**	0.045	-0.325	0.359	1								
Cu	0.808***	-0.706***	0.710***	-0.350	-0.650***	0.068	0.330	-0.500**	-0.786***	1							
Zn	-0.349	0.515**	-0.298	0.204	0.544**	0.095	-0.024	0.496	0.579**	-0.475	1						
Chl	0.616**	-0.473	0.439	0.095	-0.244	0.265	0.344	-0.150	-0.467	0.622**	-0.178	1					
Flav	0.036	0.078	-0.130	-0.023	0.243	0.113	0.190	-0.338	-0.058	0.032	-0.178	-0.198	1				
Anth	-0.498*	0.257	-0.146	-0.041	0.134	-0.004	-0.197	-0.189	0.435	-0.389	-0.055	-0.775***	0.473	1			
NBI	0.594**	-0.493	0.554**	-0.026	-0.374	0.258	0.334	-0.060	-0.483	0.610**	-0.100	0.950***	-0.405	-0.819***	1		
LDMC	0.527**	-0.399	0.419	0.086	-0.340	0.088	0.240	-0.529**	-0.179	0.621**	-0.039	0.425	0.231	-0.094	0.354	1	
SLA	-0.125	0.296	-0.242	-0.004	0.394	-0.054	-0.113	0.696**	-0.016	-0.237	0.457	0.046	-0.396	-0.442	0.099	-0.550**	1

Table S3. Pearson correlation matrix between the analyzed variables. Data from leaf diagnostics, content of total chlorophyll, flavonol, anthocyanin and nitrogen balance index and leaf biometrics recorded at 120 DAFB were compared. The correlation between the variables is highlighted in bold. Significance is expressed as *, **, ***, at $p < 0.05$, 0.01, 0.001, respectively. (Level of correlation: 1.0–0.8 very high; 0.8–0.6 high; 0.6–0.4, moderate; 0.4–0.2, low; 0.2–0: negligible correlation).

Variables	N	C	P	K	Ca	Mg	Fe	Mn	B	Cu	Zn	Chl	Flav	Anth	NBI	LDMC	SLA
N	1																
C	-0.590**	1															
P	0.420	0.015	1														
K	-0.702***	0.838***	-0.074	1													
Ca	0.139	0.217	-0.216	0.049	1												
Mg	0.009	0.127	0.205	-0.092	0.047	1											
Fe	-0.435	0.649***	-0.100	0.505**	-0.077	0.209	1										
Mn	0.558**	0.001	0.200	-0.225	0.243	-0.200	0.068	1									
B	-0.167	0.171	-0.375	0.158	0.230	0.005	0.137	0.123	1								
Cu	0.634**	-0.411	0.168	-0.539**	0.428	0.409	-0.532**	0.274	0.121	1							
Zn	-0.456	0.214	-0.416	0.379	-0.250	-0.170	0.269	-0.358	0.284	-0.384	1						
Chl	0.721***	-0.270	0.232	-0.260	0.163	-0.016	-0.083	0.700***	0.167	0.521**	-0.392	1					
Flav	0.173	-0.271	-0.406	-0.379	0.017	-0.056	-0.399	-0.036	0.225	0.173	0.222	-0.139	1				
Anth	-0.477	0.050	-0.038	-0.002	-0.242	0.049	-0.178	-0.695***	-0.214	-0.330	0.094	-0.862***	0.266	1			
NBI	0.644***	-0.195	0.306	-0.152	0.149	-0.012	0.001	0.672***	0.118	0.461	-0.367	0.972***	-0.354	-0.892***	1		
LDMC	0.277	-0.137	-0.048	-0.176	0.289	0.159	-0.422	-0.058	0.250	0.481	0.108	0.003	0.650***	0.044	-0.132	1	
SLA	-0.117	0.215	0.088	0.325	-0.127	-0.1430	0.465	0.432	0.077	-0.319	0.051	0.232	-0.581**	-0.493**	0.373	-0.500**	1