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Erratum

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Modeling the sustainability and economics of stacked herbicide-tolerant traits and early weed management strategy for waterhemp (*Amaranthus tuberculatus*) control – ERRATUM

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In the original publication of this article (Liu et al. 2020), several errors relating to the table footnotes were present due to a processing oversight by the publisher.

Note "b" for Table 1 was mistakenly omitted. The note should read:

[b]Survival at recommended doses of Y and Z depended on genotypes, and therefore these values were not used in the model.

The positioning of several note callouts within Table 3 was incorrect, and the contents of notes "j" and "k" were swapped. The correct table, with notes, appears on the subsequent page.

The publisher apologizes for these errors, and no fault is attributed to the authors.

Reference

Liu C, Neve P, Glasgow L, Wuerffel RJ, Owen MDK, Kaundun SS (2020) Modeling the sustainability and economics of stacked herbicide-tolerant traits and early weed management strategy for waterhemp (*Amaranthus tuberculatus*) control. Weed Sci 68:179–185

Table 3. Cost–benefit calculation of three example weed control scenarios using products available on the U.S. soybean market.[a]

		Costs				Resistance and yield[b]			Commodity price[c]		Net gain per year		
Scenario		Herbicides[d]	Adjuvants[e]	Seeds[f]	Labor/ machine[g]	Duration of good control	Good yield	Bad yield	Good quality grain	Poor quality grain	Per good year	Per bad year[b]	Net gain in 20 yr
		----------US$ ha^{-1}[h]----------				years	---L[h] ha^{-1}---		-------US$ L^{-1}------		----------US$ ha^{-1}---------		
Example	Herbicide Q (2× POST)	= 30 × 2	= 5 × 2	100	= 20 × 2	5	6,095	2,612	0.23	0.17	1,192[i]	234[j]	9,470[k]
H	Glyphosate solo (3× POST)	39	15	104	55	7	6,095	2,612	0.23	0.17	1,189	231	11,326
H+X+Y	Glyphosate+2,4-D+glufosinate (1× POST)	64	11	128	55	>20	6,095	NA	0.23	NA	1,027	NA	20,540
	2,4-D+glufosinate (2× POST)	95	22										
EWM(ii)	SMOC+fomesafen (PRE)	26	0	114	37	>20	6,095	NA	0.23	NA	1,182	NA	23,640
	Glyphosate+2,4-D (1× POST)	32	11										

[a]Note that the calculations here are only presented as figurative examples and do not aim to promote any particular herbicide.
[b]Good yield without herbicide failure or bad yield (or bad year) due to resistance/weed control failure.
[c]Considering impacts of weed seed contamination and grain quality.
[d]Based on Enlist One® (Corteva Agriscience, Wilmington, DE), Enlist Duo® (Corteva Agriscience, Wilmington, DE), Liberty® 280 SL (BASF Corporation, Raleigh, NC), Prefix® (Syngenta Crop Protection, Inc., Greensboro, NC), and Roundup® PowerMax (Bayer Crop Science, St. Louis, MO).
[e]Based on N-Pak® AMS (Source AMS 34 2 × 2.5. Winfield® United, St. Paul, MN) and drift reduction agent Intact™ (2 × 2.5. Precision Labs Inc., Northbrook, IL).
[f]Based on Enlist™ soybeans (Corteva Agriscience, Wilmington, DE), Enlist E3™ soybeans (Corteva Agriscience, Wilmington, DE), and Roundup Ready® 2 soybeans (Bayer Crop Science, St. Louis, MO).
[g]Based on 2018 Iowa Farm Custom Rate Survey.
[h]1 ha = 2.47 acre; 1 L = 0.028 U.S. bushel.
[i]Equals (6,095 L × US$0.23 L^{-1}) − (US$30 × 2 herbicide cost) − (US$5 × 2 adjuvant cost) − US$100 seed cost − (US$20 × 2 labor and machine cost).
[j]Equals (2,612 L × US$0.17 L^{-1}) − (US$30 × 2 herbicide cost) − (US$5 × 2 adjuvant cost) − US$100 seed cost − (US$20 × 2 labor and machine cost).
[k]Equals (5 good years × US$1,192) + (15 bad years × US$234).