

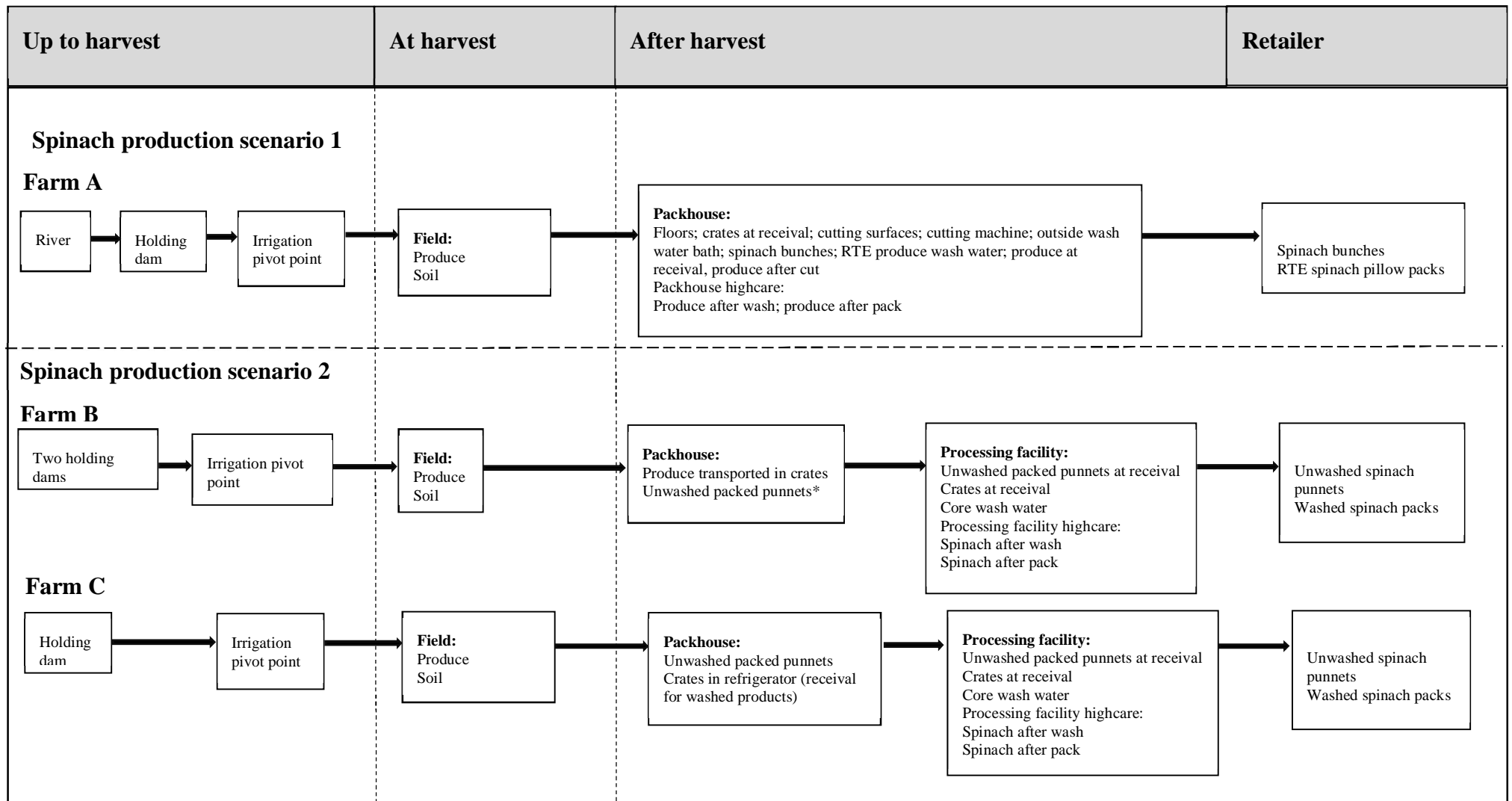
**Supplementary Table S1:** Score values of identified Enterobacteriaceae presumed to be extended-spectrum  $\beta$ -lactamase and/or AmpC-producing strains, isolated from two fresh produce production systems

Isolate number	Source	Organism identity	Organism best match*		Range**	Consistency category***
			Score 1	Score 2		
1	Water reservoir	<i>Escherichia coli</i>	2,495	2,46	+++	A
2	Water reservoir	<i>Escherichia coli</i>	2,47	2,383	+++	A
3	Water reservoir	<i>Escherichia coli</i>	2,433	2,365	+++	A
4	River water	<i>Escherichia coli</i>	2,475	2,443	+++	A
5	Irrigation pivot point water	<i>Escherichia coli</i>	2,397	2,458	+++	A
6	Irrigation pivot point water	<i>Escherichia coli</i>	2,375	2,359	+++	A
7	Irrigation pivot point water	<i>Escherichia coli</i>	2,388	2,533	+++	A
8	Irrigation pivot point water	<i>Klebsiella pneumoniae</i>	2,21	2,4	++	A
9	Irrigation pivot point water	<i>Klebsiella pneumoniae</i>	2,364	2,43	+++	A
10	Irrigation pivot point water	<i>Klebsiella pneumoniae</i>	2,435	2,435	+++	A
11	Wash water	<i>Rahnella aquatilis</i>	1,981	1,984	+	C
12	River water	<i>Salmonella spp.</i>	2,227	2,397	+++	A
13	Irrigation pivot point water	<i>Salmonella spp.</i>	2,037	2,271	++	A
14	Irrigation pivot point water	<i>Serratia fonticola</i>	2,346	2,381	+++	A
15	Irrigation pivot point water	<i>Serratia fonticola</i>	2,422	2,488	+++	A
16	River water	<i>Serratia fonticola</i>	2,234	2,365	++	A
17	Unwashed spinach punnet at retailer	<i>Enterobacter asburiae</i>	1,873	2,001	++	C
18	Spinach after cut	<i>Escherichia coli</i>	2,464	2,407	+++	A
19	Unwashed spinach bunches at retailer	<i>Escherichia coli</i>	2,429	2,51	+++	A
20	Spinach at retailer	<i>Escherichia coli</i>	2,476	2,552	+++	A
21	Spinach at harvest	<i>Klebsiella pneumoniae</i>	2,424	2,498	+++	A
22	Spinach at harvest	<i>Klebsiella pneumoniae</i>	2,49	2,523	+++	A
23	Spinach at retailer	<i>Klebsiella pneumoniae</i>	2,465	2,522	+++	A
24	Spinach at retailer	<i>Klebsiella pneumoniae</i>	2,445	2,504	+++	A
25	Spinach at retailer	<i>Klebsiella pneumoniae</i>	2,512	2,503	+++	A
26	Unwashed spinach bunches at retailer	<i>Klebsiella pneumoniae</i>	2,493	2,548	+++	A
27	Spinach at receival	<i>Rahnella aquatilis</i>	2,055	2,073	++	C
28	Spinach at receival	<i>Rahnella aquatilis</i>	2,334	2,396	+++	C
29	Unwashed spinach bunches at retailer	<i>Rahnella aquatilis</i>	1,97	2,044	+	B
30	Spinach at retailer	<i>Rahnella aquatilis</i>	1,91	1,962	+	C
31	Spinach at retailer	<i>Rahnella aquatilis</i>	1,917	1,931	+	B
32	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,074	2,42	+++	A
33	Spinach at dispatch	<i>Serratia fonticola</i>	2,267	2,399	+++	A
34	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,191	2,294	++	A
35	Spinach at receival	<i>Serratia fonticola</i>	2,225	2,245	++	A
36	Spinach after pack	<i>Serratia fonticola</i>	2,347	2,344	+++	C
37	Spinach at retailer	<i>Serratia fonticola</i>	2,416	2,411	+++	A
38	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,189	2,255	++	A
39	Spinach at receival	<i>Serratia fonticola</i>	2,336	2,418	+++	A

## Supplementary Table S1 continued

Isolate number	Source	Organism identity	Organism best match*		Range**	Consistency category***
			Score 1	Score 2		
40	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,423	2,378	+++	A
41	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,406	2,431	+++	A
42	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,336	2,357	+++	A
43	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,305	2,342	+++	A
44	Spinach at retailer	<i>Serratia fonticola</i>	2,382	2,364	+++	A
45	Unwashed spinach punnet at packhouse	<i>Serratia fonticola</i>	2,241	2,202	++	A
46	Unwashed spinach punnet at packhouse	<i>Serratia fonticola</i>	2,338	2,425	+++	A
47	Spinach at receival (packhouse)	<i>Serratia fonticola</i>	2,343	2,299	++	A
48	Spinach at receival	<i>Serratia fonticola</i>	2,476	2,347	+++	A
49	Contact surfaces (packhouse)	<i>Serratia fonticola</i>	2,32	2,387	+++	A
50	Contact surfaces (packhouse)	<i>Serratia fonticola</i>	2,338	2,375	+++	C
51	Unwashed spinach at dispatch (packhouse)	<i>Escherichia coli</i>	2,525	2,523	+++	A
52	Holding dam water (source water)	<i>Escherichia coli</i>	2,446	2,63	+++	A
53	Contact surfaces (packhouse)	<i>Rahnella aquatilis</i>	2,405	2,436	+++	C
54	River water	<i>Salmonella spp.</i>	2,302	2,282	++	A
55	Irrigation pivot point water	<i>Salmonella spp.</i>	2,19	2,147	++	C
56	Spinach at harvest	<i>Serratia fonticola</i>	2,06	2,206	++	A
57	Unwashed spinach punnet at retailer	<i>Serratia fonticola</i>	2,205	2,349	++	A
58	Spinach at receival (packhouse)	<i>Serratia fonticola</i>	2,155	2,292	++	A
59	Contact surfaces (packhouse)	<i>Serratia fonticola</i>	2,194	2,314	++	A

Control strain: Bruker Bacterial Test Standard (BTS): consists of a manufactured extract of *Escherichia coli* DH5 alpha. Isolates 1 – 48 were subsequently confirmed as ESBL/AmpC-producing Enterobacteriaceae. \* All isolates were measured in duplicate; \*\* Range description: 2.300-3.000 (+++) highly probable species identification; 2.000- 2.299 (++) secure genus identification, probable species identification; 1.700- 1.999 (+) probable genus identification; 0.000- 1.699 (-) not reliable identification; \*\*\* Consistency categories description: (A) Species consistency; (B) Genus consistency; (C) No consistency, consider synonyms of names



**Supplementary Figure S1:** Different sampling points throughout the fresh produce supply chain selected for phenotypic antimicrobial resistance profile and genetic determinant ESBL/AmpC-producing Enterobacteriaceae analysis.

\*punnets: plastic containers in which the baby spinach were packaged