CLAIMS

WHAT IS CLAIMED IS:

1. An injection treatment solution for injecting a crustacean, comprising:

water; and

emulsified crustacean substrate of the crustacean being treated, wherein an amount of emulsified crustacean substrate is between 10-30% of the injection treatment solution.

2. The injection treatment solution of Claim 1, wherein the crustacean being treated is shrimp and the emulsified crustacean substrate is shrimp meat.

3. The injection treatment solution of Claim 1, further comprising salt, wherein an amount of salt is between 0.1-3% of the injection treatment solution.

4. The injection treatment solution of Claim 1, wherein an amount of emulsified crustacean substrate is defined by a target pickup of between 10-30% after injection.

5. The injection treatment solution of Claim 1, wherein an amount of emulsified crustacean substrate is defined by a target yield to green between 100-130% after injection.

6. The injection treatment solution of Claim 3, wherein a percentage of at least one of emulsified crustacean substrate, water, and salt is selected to achieve a desired level of salt in an injected crustacean that is cooked and/or frozen.

7. A conveyance system for conveying a crustacean to be injected with the injection treatment solution of Claim 1, the conveyance system includes a crustacean stabilizing assembly configured to substantially maintain a position of the crustacean relative to a support surface of the conveyance system before, during, and/or after injection.

8. A method of injecting a crustacean food product, comprising:

formulating an injection treatment solution including emulsified crustacean substrate of the crustacean being treated and water, wherein an amount of emulsified crustacean substrate is between 10-30% of the injection treatment solution; and

injecting a crustacean with the injection treatment solution.

9. An injection treatment solution for injecting shrimp, comprising:

water;

salt, wherein an amount of salt is between 0.1-3% of the injection treatment solution; and

emulsified shrimp meat, wherein an amount of emulsified shrimp meat is between 10-25% of the injection treatment solution.

10. The injection treatment solution of Claim 9, wherein the amount of salt is between 2.4-2.7% of the injection treatment solution, and wherein the amount of emulsified shrimp meat is between 14-21% of the injection treatment solution.

11. The injection treatment solution of Claim 9, wherein the amount of salt and the amount of emulsified shrimp meat is defined by a target pickup for fresh shrimp that are categorized as 31/34 count shrimp in a raw state of 18-21% after injection.

12. The injection treatment solution of Claim 11, wherein the amount of salt is about 2.4% of the injection treatment solution and the amount of emulsified shrimp meat is about 21% of the injection treatment solution.

13. The injection treatment solution of Claim 9, wherein the amount of salt and the amount of emulsified shrimp meat is defined by a target pickup for fresh shrimp that are categorized as 41/50 count shrimp in a raw state of 18-19% after injection.

14. The injection treatment solution of Claim 13, wherein the amount of salt is about 2.4% of the injection treatment solution and the amount of emulsified shrimp meat is about 21% of the injection treatment solution.

15. The injection treatment solution of Claim 9, wherein the amount of salt and the amount of emulsified shrimp meat is defined by a target pickup for fresh shrimp in a raw state of about 26% after injection.

16. The injection treatment solution of Claim 15, wherein the amount of salt is about 2.6% of the injection treatment solution and the amount of emulsified shrimp meat is about 15% of the injection treatment solution.

17. A method of injecting a shrimp food product, comprising:

formulating an injection treatment solution, comprising:

water;

salt, wherein an amount of salt is between 0.1-3% of the injection treatment solution; and

emulsified shrimp meat, wherein an amount of emulsified shrimp meat is between 10-25% of the injection treatment solution;

injecting shrimp with the injection treatment solution;

increasing a pre-injection weight of shrimp injected with the injection treatment solution by greater than about 18%.