CLAIMS

1. A method of manufacturing a plastic article, the method comprising:

obtaining input material suitable for manufacturing the plastic article and for which tracing information is known;

forming the plastic article from the input material;

generating a computer-readable matrix barcode scannable to display the tracing information;

associating the computer-readable matrix barcode with a web landing page that displays the tracing information; and

providing the computer-readable matrix barcode on a surface of the plastic article,

wherein the input material comprises a first ingredient and at least a second ingredient, the tracing information comprises first tracing information for the first ingredient and second tracing information for the second ingredient.

2. The method of claim 1, wherein said obtaining the input material comprises setting a relative proportion among at least the first and second ingredients.

3. The method of claim 1 or 2, wherein at least one of the first and second ingredients is a recycled ingredient.

4. The method of any one of claims 1 to 3, wherein said forming the plastic article comprises thermoforming the plastic article, and wherein the method further comprises extruding a plastic sheet made from the input material before said thermoforming the plastic article.

5. The method of any one of claims 1 to 4, wherein the computer-readable matrix barcode is a quick response (QR) code.

6. The method of any one of claims 1 to 5, wherein said providing the computer-readable matrix barcode comprises using a laser to etch the computer-readable matrix barcode on the surface of the plastic article.

7. The method of any one of claims 1 to 6, wherein the input material comprises one of polyethylene terephthalate, polypropylene, and polystyrene.

8. The method of any one of claims 1 to 7, further comprising generating a revised computer-readable matrix barcode in response to a change in the input material.

9. The method of claim 8, wherein the change in the input material comprises at least one of a composition change, a source change, and a proportion change for at least one ingredient of the input material.

10. The method of any one of claims 1 to 9, further comprising, after said providing the computer-readable matrix barcode on the surface of the plastic article, stacking the plastic article onto another plastic article manufactured by the method immediately prior thereto.

11. The method of any one of claims 1 to 10, wherein said forming the plastic article occurs after said generating the computer-readable matrix barcode.

12. The method of any one of claims 1 to 11, wherein said providing the computer-readable matrix barcode on the surface of the plastic article takes place within 1 minute of completion of said forming the plastic article.

13. The method of any one of claims 1 to 12, wherein said generating the computer-readable matrix barcode comprises encoding a uniform resource locator (URL) for the web landing page into the matrix barcode.

14. A system for marking a plastic article with a computer readable matrix barcode associated with input material used to form the plastic article, the system comprising:

a barcode applicator positioned downstream of an article forming operation, the barcode applicator configured to provide a computer-readable matrix barcode on a surface of the plastic article;

an electronic control device communicatively coupled to the barcode applicator, the electronic control device having one or more computer processors configured to collectively:

receive tracing information for one or more ingredients of the input material used to form the plastic article;

generate the computer-readable matrix barcode scannable to display the received tracing information for each ingredient;

transmit, to the barcode applicator, one or more commands instructing the barcode applicator to provide the generated computer-readable matrix barcode on the surface of the plastic article; and

generate a revised computer-readable matrix barcode in response to a change in the input material, wherein preferably the change in the input material comprises at least one of a composition change, a source change, and a proportion change for at least one of the one or more ingredients.

15. The system of claim 15, wherein to generate the computer-readable matrix barcode, the one or more computer processors are configured to collectively encode, in the computer-readable matrix barcode, a URL associated with a web landing page that displays the tracing information.

16. The system of claim 14 or 15, wherein the one or more computer processors are configured to collectively receive revised tracing information corresponding to the change in the input material.

17. The system of any one of claims 14 to 16, wherein the barcode applicator is positioned upstream of an article stacking operation.

18. The system of any one of claims 14 to 17, wherein the barcode applicator is positioned upstream of an article finishing operation.

19. The system of any one of claims 14 to 18, wherein the barcode applicator is a laser configured to etch the computer-readable matrix barcode on the surface of the plastic article.

20. The system of any one of claims 14 to 19, wherein the computer-readable matrix barcode is a quick response (QR) code.