



STATE OF NEW YORK  
OFFICE OF THE ATTORNEY GENERAL

ERIC T. SCHNEIDERMAN  
ATTORNEY GENERAL

DIVISION OF REGIONAL OFFICES

February 2, 2015

Brian C. Cornell, CEO  
Target Corporation  
1000 Nicollet Mall  
Minneapolis, Minnesota 55403

Certified—Return Receipt Requested  
Facsimile: 612-696-6325

Re: **CEASE & DESIST NOTIFICATION**  
*Up & Up—Target Distributed Herbal Dietary Supplements*

Dear Mr. Cornell:

**This letter constitutes a demand to cease and desist engaging in the sale of adulterated and/or mislabeled herbal dietary supplements, and in particular to immediately stop the sale of three “Up & Up” dietary supplements as identified by lot number in the exhibit annexed hereto.**

Be advised that the Attorney General is authorized by Executive Law § 63(12) to investigate allegations and prosecute businesses which perpetuate fraud upon consumers or engage in illegality in their business practices. General Business Article 22-b further authorizes this office to redress deceptive business acts and practices and false advertising. Of late, the topic of purity (or lack thereof) in popular herbal dietary supplements has raised serious public health and safety concerns,<sup>1</sup> and also caused this office to take steps to independently assess the validity of industry representations and advertising.

In an investigation recently conducted by the Attorney General’s Office, six popular Target “Up & Up” brand dietary supplement products were purchased at three different New York State locations, and were then genetically tested five times per sample, yielding 90 results. The supplements tested included Gingko Biloba, St. John’s Wort, Valerian Root, Garlic, Echinacea, and Saw Palmetto. By using established DNA barcoding technology, analytic testing disclosed that 3 out of 6 types of dietary supplement products tested were either unrecognizable or a substance other than what they claimed to be, and therefore constitute contaminated or substituted products. Forty-one (41) percent of the tests yielded DNA matching the product label; 21% tested for botanical material other than what was on the label; and 38% yielded no DNA at all.

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<sup>1</sup>See, e.g., Newmaster, et al., “DNA Barcoding Detects Contamination and Substitution in North American Herbal Products,” *BMC Medicine*, 2013, 11:222 (<http://www.biomedcentral.com/1741-7015/11/222>).

Contamination, substitution and falsely labeling herbal products constitute deceptive business practices and, more importantly, present considerable health risks for consumers. The Attorney General's testing upon the products purchase revealed the following:

**Ginkgo Biloba.** Negative. No ginkgo biloba DNA was identified. The only DNA identified was allium (x2), "oryza"(x2)(commonly known as rice), mung/French bean. Ten of the tests revealed no plant DNA whatsoever.

**St. John's Wort.** Negative. No St. John's Wort DNA was identified. Of the 15-tests performed, only three identified any DNA, and it included allium, oryza, and dracaena (tropical houseplant).

**Garlic:** Positive. Fourteen of fifteen tests yielded DNA from allium. One test identified no DNA.

**Echinacea:** Qualified Positive. Eleven of 15 tests identified Echinacea DNA, 3 tests located no genetic evidence of Echinacea, and 1 test identified oryza DNA.

**Saw Palmetto:** Qualified positive. Twelve of 15 tests identified the presence of saw palmetto, with 3 tests not identifying any genetic evidence of plant material of any type.

**Valerian Root:** Negative. No Valerian root DNA was identified. The testing did, however, yield identification of allium (x4), phasolus/beans; asparagacea, pea family DNA, oryza (x2), and phaseolus fabacaeae, wild carrot, and saw palmetto genetic material, with 3 of the tests identifying no genetic material at all.

Studies conducted by the Centre for Biodiversity Genomics at the University of Guelph and others have previously alerted the dietary supplement industry to the fact that it is not providing the public with authentic products without substitution, contamination or fillers. It is disappointing that over a year later the Attorney General's researcher reached similar conclusions, demonstrating that the industry has failed to clean up its practices.

To assist in the Attorney General's ongoing investigation of this matter, and pursuant to the above authority, kindly supply the following information:

1. The name of the manufacturer and the location of the production of each of the herbal products identified above.
2. A listing of any DNA testing or any other analytic testing for content and quality (including but not limited to chemical composition) of the herbal products listed above and copies of such testing results.
3. Copies of all licensing and production contracts with any party involved in the production and distribution of the herbal products identified above.
4. A listing of all ingredients used in the products identified above and a measurement of the amount of each ingredient in each of the herbal products identified above.

5. Identify the standards or procedures followed to authenticate the content of the herbal products listed above.
6. Produce the relevant Bioterrorism Registration documentation for the manufacturer of the dietary supplements.
7. Articulate the acquisition, production protocol, and quality assurance measures undertaken by the manufacturer of the products tested, including all such protocols undertaken to comply with current Dietary Supplement Current Good Manufacturing Practices (CGMPs) for quality control.
8. Produce any and all serious adverse event reports associated with use of any Target herbal dietary supplement in the United States.

Please provide the requested information to me at the following address: NYS Attorney General's Office, Dulles State Office Building, 317 Washington Street, Watertown, New York 13601. Kindly respond on or before 5:00 P.M. on February 9, 2015. If you have any questions, you may contact Assistant Attorney General Deanna R. Nelson at 315-785-2444.

The foregoing shall not constitute a waiver of or limitation on the Attorney General's authority to issue subpoenas or take enforcement action pursuant to applicable law.

Thank you for your anticipated cooperation.

Very truly yours,

**MARTIN J. MACK**  
Executive Deputy Attorney General  
For Regional Offices

Enc.

Cc: Timothy R. Baer, Exec. Vice President, Chief Legal Officer

**Supplements by Lot #:** As a courtesy, store location for the tested supplement is also listed. Kindly remove all of the supplements identified below which may bear the lot number indicated no matter the store location.

<b>OAG #</b>	<b>Product</b>	<b>Address</b>	<b>Lot #</b>
Po-T-1	Gingko Biloba	Target, Poughkeepsie Galleria, 2001 South Road, Poughkeepsie, NY 12601	4CN1978
Po-T-2	St. John's Wort	Target, Poughkeepsie Galleria, 2001 South Road, Poughkeepsie, NY 12601	4CN1557
Po-T-7	Valerian Root	Target, Poughkeepsie Galleria, 2001 South Road, Poughkeepsie, NY 12601	4EN1858
N-T-1	Gingko Biloba	Target, 999 Corporate Drive, Westbury, NY 11590	4FN1313
N-T-2	St. John's Wort	Target, 999 Corporate Drive, Westbury, NY 11590	4EN1223
N-T-7	Valerian Root	Target, 999 Corporate Drive, Westbury, NY 11590	4EN1497
Sy-T-1	Gingko Biloba	Target, 3657 W. Genesee Street, Syracuse, NY 13219	4EN1222
Sy-T-2	St. John's Wort	Target, 3657 W. Genesee Street, Syracuse, NY 13219	4DN1794
Sy-T-7	Valerian Root	Target, 3657 W. Genesee Street, Syracuse, NY 13219	4DN1774