

September 12, 2014

VIA EMAIL AND EDGAR TRANSMISSION

Ms. Amanda Ravitz Assistant Director United States Securities and Exchange Commission Division of Corporate Finance – Mail Stop 6010 Washington, DC 20549

Re: Terra Tech Corp.

Registration Statement on Form S-1

Filed August 8, 2014 File No. 333-198010

Dear Ms. Ravitz:

Terra Tech Corp., a Nevada corporation (the "Company," "we," "us," or "our"), is submitting this letter in response to the comment letter from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") dated September 4, 2014 (the "Comment Letter"), with respect to the Company's Registration Statement on Form S-1 (File No. 333-198010) (the "Registration Statement") filed with the Commission on August 8, 2014.

This letter sets forth the comments of the Staff in the Comment Letter (numbered in accordance with the Comment Letter) and, following each comment, sets forth the Company's response. In addition, we have simultaneously filed Amendment No. 1 to the Registration Statement.

1. Please revise to include updated financial statements and related disclosures in your filing as required by Rule 3-12 of Regulation S-X.

Response: Amendment No. 1 to the Registration Statement includes updated financial statements and related disclosures as required by Rule 3-12 of Regulation S-X.

MediFarm, MediFarm I, and MediFarm II, page 7

2. Please expand your disclosure regarding this line of business so that investors can understand the extent and scope of this new line of business. For example, please disclose your reasons for forming three subsidiaries in this manner and describe why you used ownership structures and identify the co-investors. Also, please describe how you intend to allocate new business opportunities among these three subsidiaries.

Response: Amendment No. 1 to the Registration Statement expands our disclosure regarding the line of business of MediFarm, MediFarm I and MediFarm II. This expanded disclosure includes our reasons for forming these three subsidiaries, the entity structure and the identity of the co-investors. We have also disclosed how we intend to allocate new business opportunities among these three subsidiaries.

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Response of Terra Tech Corp. to Staff Comment Letter of September 4, 2014

3. Your summary disclosure should be a balanced description of your business including describing any material risks associated with your businesses. Please revise accordingly.

Response: Amendment No. 1 to the Registration Statement provides a revised summary disclosure on the business of MediFarm, MediFarm I, and MediFarm II, including descriptions of material risks associated with the businesses.

The Debt Placement, Page 7

4. Please expand your disclosure to explain in more detail the role and payments by and to Aegis Capital Corp in your debt placement. For example, please explain the "right to co-invest" in more detail. Please explain what it means that the "Aegis Designees have economic rights to the underlying shares," but not voting or dispositive power and the reason why the transaction was structured in this manner.

Response: Amendment No. 1 to the Registration Statement expands our disclosure of the role and payments by and to Aegis Capital Corp., including disclosure on the economic, voting, and dispositive rights of the Aegis Designees and the reason why the transaction was structured in this manner.

Use of Proceeds, Page 8

5. Please expand your disclosure regarding your use of proceeds to describe in more detail your plans for "commercial development of GrowOp Technologies, Edible Garden, MediFarm, MediFarm I, and MediFarm II." This disclosure should quantify how much money it will cost to commercially develop each of these operations and if there will not be enough money to complete such development, how you intend to pay for such development.

Response: Amendment No. 1 to the Registration Statement expands our disclosure on the use of proceeds, including our plans for the commercial development of GrowOp Technologies, Edible Garden, MediFarm I, and MediFarm II. Our revised disclosure includes a discussion of the amount of money we expect that we will need to expend for the commercial development of each of these operations and the potential sources of the funds needed in such development.

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Response of Terra Tech Corp. to Staff Comment Letter of September 4, 2014

Signatures

6. It appears that the directors who have signed this registration statement have not signed your most recent Form 10-K. Please revise or advise.

Response: We inadvertently failed to include the signatures of our directors in our Annual Report on Form 10-K. We filed an amended Annual Report on Form 10-K with the Commission on September 9, 2014 to remedy this deficiency.

We acknowledge that:

- · Should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- · The action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing;
- · The Company may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Should there be any questions that might be facilitated by contemporaneous dialogue, please feel free to call me at (855) 447-6967 or our counsel, Randy Katz of BakerHostetler at (714) 966-8807.

Sincerely,

/s/ Derek Peterson

Derek Peterson Chief Executive Officer

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