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CONFIDENTIAL

June 15, 2017

Re: Calyxt, Inc.

Draft Registration Statement on Form S-1

Submitted May 15, 2017 CIK No. 0001705843

Mr. John Dana Brown Division of Corporate Finance U.S. Securities and Exchange Commission 100 F Street, N.E. Washington, DC 20549-3628

Dear Mr. Brown:

On behalf of our client, Calyxt, Inc., a Delaware corporation (the "Company"), we are responding to the comments from the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission") relating to the Company's confidential draft Registration Statement on Form S-1 (the "Registration Statement") contained in the Staff's letter dated June 8, 2017 (the "Comment Letter"). In response to the comments set forth in the Comment Letter, the Company has revised the Registration Statement and is confidentially submitting a revised draft of the Registration Statement together with this response letter. The revised draft of the Registration Statement also contains certain additional updates and revisions. We are also sending, under separate cover, a copy of the revised draft of the Registration Statement and three marked copies of the Registration Statement showing the changes to the Registration Statement confidentially submitted on May 15, 2017.

Set forth below are the Company's responses to the Staff's comments in the Comment Letter. The responses and information below are based on information provided to us by the Company. For convenience, the Staff's comments are repeated below in italics, followed by the Company's response to the comments as well as a summary of the responsive actions taken. We have included page numbers to refer to the location in the revised draft of the Registration Statement submitted herewith where the revised language addressing a particular comment appears.

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General

1. Please provide us copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

Response:

The Company acknowledges the Staff's request and undertakes to comply with it as applicable. The Company will provide the Staff with all written materials provided during the presentations to potential investors in reliance on Section 5(d) of the Securities Act on a supplemental basis.

2. Please provide us mockups of any pages that include any additional pictures or graphics to be presented, including any accompanying captions. Please keep in mind, scheduling your printing and distributing of the preliminary prospectus, that we may have comment after reviewing the materials

Response:

The Company has updated the Registration Statement on the inside front cover and elsewhere to include all of the pictures and graphics, including accompanying captions, to be included in the printed prospectus.

3. Please update the financial statements pursuant to Rule 8-08 of Regulation S-X and other information in the filing to include the interim period ended March 31, 2017.

Response:

The Company has updated the Registration Statement to include financial statements and other financial information for the quarter ended March 31, 2017.

Use of Proceeds, page 46

4. Please clarify whether the contemplated use of proceeds to "build out commercial capabilities" refers to the facility expansion you discuss elsewhere. To the extent a material amount of other funds will be necessary to accomplish this purpose, please quantify the amount and anticipated source of funds. Please also revise Liquidity and Capital Resources as appropriate. Refer to Instructions 2 and 3 to Item 504 of Regulation S-K.

Response:

The Company respectfully advises the Staff that the reference to commercial capabilities is not intended to refer to the building for the planned facility expansion described elsewhere in the Registration Statement, which the Company currently intends to finance in whole or in part through a sale leaseback transaction. In response to the Staff's comment, the Company has revised the disclosure on pages 46, 63 and 96 of the Registration Statement.

June 15, 2017

Liquidity and Capital Resources, page 60

Sources of Liquidity, page 60

5. You state Cellectis will guarantee funding for your operations through May 2018. Please discuss whether the timing of or amount raised in the initial public offering will release, modify, or otherwise affect the Cellectis guarantee.

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Response:

The Company respectfully advises the staff that the timing of or amount raised in the initial public offering will not release, modify or otherwise affect the Cellectis guarantee. In response to the Staff's comment, the Company has revised the disclosure on pages 55, 61 and 115 of the Registration Statement.

Business, page 64

Our Competitive Strengths, page 67

6. In the first bullet point on page 68 please further explain the layering of new products on top of existing products and how this provides incremental value without significant incremental costs.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 3 and 70 of the Registration Statement.

Our Technologies, page 72

7. Please discuss, to the extent material, any limitations or challenges presented by not using foreign DNA in developing your product pipeline. For example, discuss whether there are practical limitations in the number of products or extent of traits which can be gene-edited without using foreign DNA or other techniques.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 75 of the Registration Statement.

Our Commercial Strategy, page 73

8. Please expand your discussion of your plans to repurpose your existing supply chain capacity, including milestones and, to the extent material, estimated budgets. Please also clarify whether each product you commercialize has or will have its own dedicated supply chain.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 75 and 76 of the Registration Statement.

9. Please briefly explain the use of tolling arrangements in the context of an agricultural supply chain and your specific business model.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 76, 78 and 80 of the Registration Statement.

June 15, 2017

Our Product Pipeline, page 74

Herbicide Tolerant Wheat (Farmer Trait), page 76

10. Please explain how herbicide tolerant crops are a "sustainable" alternative and briefly describe the alternative crop protection chemistries you reference here.

Response:

In response to the Staff's comment, the Company has revised the disclosure on pages 82 and 83 of the Registration Statement to delete the word "sustainable".

Description of Capital Stock, page 110

11. You state that the description of capital stock is qualified in its entirety by reference to, among other things, the Delaware General Corporation Law. It is not appropriate to qualify your disclosure by reference to information that is not included in the prospectus or filed as an exhibit to the registration statement. Please advise accordingly.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 120 of the Registration Statement.

Please do not hesitate to contact me at (212) 450-4322, (212) 701-5322 (fax) or derek.dostal@davispolk.com or Richard D. Truesdell, Jr. at (212) 450-4674, (212) 701-5674 (fax) or richard.truesdell@davispolk.com if you have any questions regarding the foregoing or if we can provide any additional information.

Very truly yours,

/s/ Derek J. Dostal

Derek J. Dostal

cc: Via E-mail

Federico A. Tripodi, Chief Executive Officer Bryan W. J. Corkal, Chief Financial Officer Calyxt, Inc.

Richard D. Truesdell, Jr., Davis Polk & Wardwell LLP