
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM S-3
REGISTRATION STATEMENT**
*UNDER
THE SECURITIES ACT OF 1933*

Calyxt, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

27-1967997
(I.R.S. Employer
Identification No.)

2800 Mount Ridge Road
Roseville, MN 55113
(651) 683-2807

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Debra Frimerman
General Counsel
Calyxt, Inc.
2800 Mount Ridge Road
Roseville, MN 55113

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Peter E. Devlin
Jones Day
250 Vesey Street
New York, New York 10281
(212) 326-3939

Approximate date of commencement of the proposed sale of the securities to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to a dividend or interest reinvestment plans, check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

EXPLANATORY NOTE

This registration statement is being filed pursuant to General Instruction I.B.4. of Form S-3 to register the issuance by Calyxt, Inc. ("Calyxt") of up to 7,760,000 shares of its common stock, \$0.0001 par value per share, issuable upon the exercise of outstanding warrants with an exercise price of \$1.41 per share.

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell the securities and are not soliciting an offer to buy the securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JULY 22, 2022

PROSPECTUS



7,760,000 Shares of Common Stock Underlying Outstanding Warrants

This prospectus relates to the issuance by Calyxt, Inc. (“Calyxt” or the “Company”) of up to 7,760,000 shares of its common stock, \$0.0001 par value per share, issuable upon the exercise of outstanding warrants with an exercise price of \$1.41 per share (the “Warrants”). The Warrants were initially issued by Calyxt on February 23, 2022 pursuant to a prospectus dated September 16, 2019 and a related prospectus supplement dated February 17, 2022, in each case under Calyxt’s Registration Statement on Form S-3 (Registration No. 333-233231). The Warrants are exercisable beginning on August 23, 2022 and will expire on August 23, 2027.

Calyxt will receive the proceeds from the exercise of the Warrants but not from any sale of the underlying shares of common stock.

Calyxt’s common stock is listed on the Nasdaq Global Market under the symbol “CLXT.” On July 21, 2022, the last reported sale price of Calyxt’s common stock on the Nasdaq Global Market was \$0.25 per share.

Investing in Calyxt’s securities involves a high degree of risk. Before making an investment decision, please read the information in the section titled “[Risk Factors](#)” beginning on page S-3 of this prospectus and in the documents incorporated by reference into this prospectus.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that Calyxt filed with the Securities and Exchange Commission (the “SEC”) utilizing a “shelf” registration process. This prospectus relates to the offering of shares of common stock issuable upon the exercise of the outstanding Warrants. Before exercising any Warrants for shares of common stock covered by this prospectus, it is important for you to read and consider all information contained in this prospectus, including the documents incorporated by reference herein. You should also read and consider the information in the documents to which Calyxt has referred you in the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference” in this prospectus.

The information contained in this prospectus or incorporated by reference herein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any issuance of Calyxt’s common stock hereunder. Calyxt’s business, financial condition, results of operations and prospects may have changed since those dates. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the SEC before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference into this prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

The representations, warranties and covenants made by Calyxt in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of Calyxt’s affairs.

Calyxt has not authorized anyone to provide you with information that is different from the information contained or incorporated by reference in this prospectus or any free writing prospectus prepared by or on behalf of Calyxt to which Calyxt has referred you. Calyxt takes no responsibility for, and can provide no assurance as to the reliability of, any other information others may give you.

Calyxt is offering to issue shares of common stock upon exercise of outstanding Warrants only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of the shares of common stock offered by this prospectus in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

This prospectus and the documents incorporated by reference in this prospectus may contain market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although Calyxt believes that these sources are reliable, it does not guarantee the accuracy or completeness of this information and Calyxt has not independently verified this information. Although the Company is not aware of any misstatements regarding the market and industry data presented or incorporated by reference in this prospectus, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed in the section titled “Risk Factors” in this prospectus or free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

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Throughout this prospectus, unless the context otherwise requires, the terms “Calyxt,” the “Company” and “it” refer to Calyxt, Inc. The term “Collectis” refers to Collectis S.A., Calyxt’s majority stockholder as of the date of this prospectus.

Calyxt owns the names PlantSpring and BioFactory. Calyxt also owns the trademarks Calyxt® and Calyno® and owns or licenses other trademarks, trade names, and service marks appearing in this this prospectus or any free writing prospectus. The names and trademarks Collectis® and TALEN®, along with any other trademarks, trade names, and service marks of Collectis appearing in this this prospectus or any free writing prospectus are the property of Collectis. This prospectus and any free writing prospectus may also contain additional trade names, trademarks and service marks belonging to other companies. Calyxt does not intend its use or display of other parties’ trademarks, trade names, or service marks to imply, and such use or display should not be construed to imply a relationship with, or endorsement or sponsorship of these other parties.

SUMMARY

This summary highlights selected information contained elsewhere in this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus and any related free writing prospectus, including the risks of investing in Calyxt's securities discussed in the section titled "Risk Factors" contained in this prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including Calyxt's financial statements, and the exhibits to the registration statement of which this prospectus is a part.

The Company

Calyxt is a plant-based synthetic biology company that leverages its proprietary PlantSpring™ technology platform to engineer plant metabolism to produce innovative, high-value plant-based chemistries for use in customers' materials and products. As plant-based solutions, the Company's synthetic biology products can be used in helping customers meet their sustainability targets and financial goals. The Company is focused on developing these synthetic biology solutions for customers in large and differentiated end markets, including the cosmeceutical, nutraceutical, and pharmaceutical industries, which are the Company's initial target markets.

Relationship with Collectis

Calyxt is currently a majority-owned subsidiary of Collectis S.A. As of March 31, 2022, Collectis owned 56.1 percent of Calyxt's 42,741,763 outstanding shares of common stock. Collectis has certain contractual rights as well as rights pursuant to Calyxt's certificate of incorporation and bylaws, in each case, for so long as it maintains threshold beneficial ownership levels in Calyxt's shares. Several of Collectis' rights remain in effect for so long as Collectis beneficially owns at least 15 percent of Calyxt's outstanding shares.

Calyxt holds an exclusive license from Collectis that broadly covers the use of engineered nucleases for plant gene editing. This intellectual property covers methods to edit plant genes using "chimeric restriction endonucleases," which include TALEN®, CRISPR/Cas9, zinc finger nucleases, and some types of meganucleases.

Corporate Information

Calyxt was incorporated in the State of Delaware in 2010. The Company's corporate headquarters is located at 2800 Mount Ridge Road, Roseville, Minnesota 55113 and Calyxt's phone number is (651) 683-2807. Calyxt's filings with the SEC are posted on its corporate website at www.calyxt.com. The information contained in, or accessible through, Calyxt's corporate website does not constitute part of this prospectus.

Calyxt's common stock is listed on the Nasdaq Global Market under the symbol "CLXT."

THE OFFERING

Common stock offered by Calyxt	7,760,000 shares of common stock issuable upon exercise of outstanding Warrants.
Common stock to be outstanding immediately after this offering	54,381,763 shares of common stock (assuming exercise of the Warrants in full).
Use of proceeds	<p>Assuming the full exercise for cash of all of the outstanding Warrants, Calyxt will receive proceeds of \$10,941,600.</p> <p>Calyxt currently intends to use the net proceeds from this exercise of the Warrants for investments in its technology platform, lab capabilities and personnel, working capital, and general corporate purposes. See the section titled “Use of Proceeds.”</p>
Risk factors	Investment in Calyxt’s securities involves a high degree of risk. You should read the section titled “Risk Factors” in this prospectus and in the documents incorporated by reference into this prospectus for a discussion of factors to consider before deciding to exercise Warrants
Nasdaq Global Market symbol	Calyxt’s common stock is traded on the Nasdaq Global Market under the symbol “CLXT.”

The number of shares of common stock to be outstanding after the exercise of all outstanding Warrants is based on 42,741,763 shares outstanding as of March 31, 2022, and as of that date:

- excludes 5,770,344 shares of common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$7.65 per share;
- excludes 1,497,418 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding;
- excludes 1,275,000 shares of common stock issuable upon the vesting and settlement of performance stock units outstanding;
- excludes 3,013,121 shares of common stock reserved for future issuance under Calyxt’s 2017 Omnibus Plan; and
- gives effect to the issuance of 3,880,000 shares of common stock in connection with the full exercise on May 4, 2022 of all outstanding pre-funded warrants issued on February 23, 2022 at an exercise price of \$0.0001 per share (the “Pre-Funded Warrants”).

Unless otherwise stated, information in this prospectus assumes no further exercise of outstanding options or Warrants and no future issuances by Calyxt of shares of its common stock.

RISK FACTORS

You should consider carefully the risks described below, which update and supplement the risk factors discussed under the section titled “Risk Factors” in Calyxt’s Annual Report on Form 10-K for the year ended December 31, 2021, as may be updated by the Company’s subsequent filings under the Securities Exchange Act of 1934 (the “Exchange Act”), that are incorporated by reference in this prospectus, together with other information in this prospectus, the documents incorporated by reference in this prospectus, and any free writing prospectus that Calyxt may authorize for use in connection with this offering before you make a decision to invest in Calyxt’s securities. If any of these risks actually occur, Calyxt’s business, operating results, prospects or financial condition could be harmed. This could cause the trading price of Calyxt’s common stock to decline and you may lose all or part of your investment. The risks below and incorporated by reference in this prospectus are not the only ones Calyxt faces. Additional risks not currently known to Calyxt or that Calyxt currently deems immaterial may also affect Calyxt’s business operations. Please also read carefully the section below titled “Cautionary Note Regarding Forward-Looking Statements.”

Risks Relating to the Offering

If you exercise Warrants, you will experience substantial and immediate dilution.

The exercise price of the Warrants is substantially higher than the net tangible book value per share of Calyxt’s common stock as of March 31, 2022. Assuming that all 7,760,000 shares of common stock are issued in connection with the exercise of Warrants and giving effect to the issuance of 3,880,000 shares of common stock in connection with the full exercise on May 4, 2022 of all outstanding Pre-Funded Warrants, you will incur immediate and substantial dilution of approximately \$0.93 per share. For a further description of the dilution that you will experience immediately after the exercise of the Warrants, see the section in this prospectus entitled “Dilution” beginning on page S-18.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, Calyxt may in the future offer additional shares of Calyxt’s common stock or other securities convertible into or exchangeable for Calyxt’s common stock. Investors purchasing shares or other securities in the future could have rights superior to holders of Calyxt’s existing securities.

Furthermore, you could experience further dilution if outstanding options are exercised or if Calyxt issues additional shares of common stock. As of March 31, 2022, approximately 11,555,883 shares of common stock that are either subject to outstanding options, issuable upon vesting of outstanding restricted stock units, issuable upon vesting of outstanding performance stock units, or reserved for future issuance under Calyxt’s equity incentive plans are eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules.

Calyxt’s management will have broad discretion over the use of the proceeds Calyxt receives from the exercise of the Warrants and might not apply the proceeds in ways that increase the value of your investment.

Calyxt’s management will have broad discretion to use the net proceeds from the exercise of the Warrants, and you will be relying on the judgment of Calyxt’s management regarding the application of these proceeds. You will not have the opportunity to influence Calyxt’s decisions on how to use the proceeds, and the Company may not apply the net proceeds from the exercise of the Warrants in ways that increase the value of your investment. Because of the number and variability of factors that will determine Calyxt’s use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by Calyxt’s management to apply these funds effectively could harm Calyxt’s business. Pending their use, the Company intends to invest the net proceeds from this offering in marketable securities that may include investment-grade interest-bearing securities, money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government in accordance with Calyxt’s investment policy. These investments may not yield a favorable return to Calyxt’s stockholders. If Calyxt does not invest or apply the net

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proceeds from this offering in ways that enhance stockholder value, the Company may fail to achieve expected financial results, which could cause its stock price to decline.

Future sales of Calyxt's common stock by Collectis or others, or the perception that such sales may occur, could depress the market price of Calyxt's common stock.

As of March 31, 2022, Collectis owned 56.1 percent of Calyxt's outstanding shares of common stock. Future sales of Calyxt's common stock in the public market will be subject to the volume and other restrictions of Rule 144 under the Securities Act of 1933 (the "Securities Act") for so long as Collectis is deemed to be Calyxt's affiliate, unless the shares to be sold are registered with the SEC. Collectis is entitled to various rights with respect to the registration of its shares under the Securities Act pursuant to the Stockholders Agreement. Registration of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration statement. In addition, the issuance of the shares of Calyxt common stock issuable upon exercise of the outstanding Warrants has been registered under the Securities Act and such upon issuance, such shares of Calyxt common stock will be freely tradable without restriction under the Securities Act. Calyxt is unable to predict whether or when Collectis will sell a substantial number of shares of Calyxt's common stock. The sale by Collectis of a substantial number of shares, or a perception that such sales could occur, could significantly reduce the market price of Calyxt's common stock.

The market price of Calyxt's common stock has been and could remain volatile, which could adversely affect the market price of Calyxt's common stock.

The market price of Calyxt's common stock has experienced, and may continue to experience, volatility in response to various factors. Between January 1, 2022, and July 21, 2022, the closing price of Calyxt's common stock on the Nasdaq Global Market fluctuated from a high of \$2.46 per share to a low of \$0.21 per share. Some factors that may cause the market price of Calyxt's common stock to fluctuate include Calyxt's quarterly operating results, Calyxt's perceived prospects or the perceptions of the market of Calyxt's pipeline, new products or technologies, changes in securities analysts' recommendations or earnings estimates and Calyxt's ability to meet such estimates, changes in general conditions in the economy or the financial markets, capital raising activity and other developments affecting Calyxt, its competitors or Collectis.

These and other market and industry factors may cause the market price and demand for Calyxt's common stock to fluctuate substantially, regardless of Calyxt's actual operating performance, which may limit or prevent investors from readily selling their common stock at a favorable price or at all and may otherwise negatively affect the liquidity of Calyxt's common stock.

Calyxt has in the past failed to satisfy certain continued listing requirements of the Nasdaq Global Market and could fail to satisfy those requirements again in the future which could affect the market price of Calyxt's common stock and liquidity and reduce its ability to raise capital.

Currently, Calyxt's common stock trades on the Nasdaq Global Market. In May 2022, Calyxt received a notification from Nasdaq informing it that the closing bid price for Calyxt's common stock had been below \$1.00 for 30 consecutive business days and that the Company, therefore, was not in compliance with the bid price requirements for continued listing on the Nasdaq Global Market. At Calyxt's 2022 annual meeting, Calyxt's stockholders approved a reverse stock split that, if effected, could cure this deficiency. However, there can be no assurance that Calyxt will be able to implement the reverse stock split and cure this deficiency, or if Calyxt does cure this deficiency, that it will not fall out of compliance again in the future. If Calyxt fails to maintain compliance with any Nasdaq listing requirements, Calyxt could be delisted and its stock would be considered a penny stock under regulations of the SEC, and would therefore be subject to rules that impose additional sales practice requirements on broker-dealers who sell Calyxt's securities. The additional burdens imposed upon broker-dealers by these requirements could discourage broker-dealers from effecting transactions in Calyxt's common stock, which could severely limit the market liquidity of Calyxt's common stock and your ability to sell its securities in the secondary market.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein contain “forward-looking statements” within the meaning of the federal securities laws, including Section 27A of the Securities Act and Section 21E of the Exchange Act.

Calyxt has made these forward-looking statements in reliance on the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify these statements by forward-looking words such as “anticipates,” “believes,” “continue,” “estimates,” “expects,” “intends,” “may,” “might,” “plans,” “predicts,” “projects,” “should,” “targets,” “will,” or the negative of these terms and other similar terminology. Forward-looking statements in this prospectus and the documents incorporated herein include statements about the Company’s future financial performance, including its cash runway; its product pipeline and development; the Company’s business model and strategies for the development, commercialization and sales of commercial products; commercial demand for its synthetic biology solutions; the development and deployment of its PlantSpring technology platform; its ability to deploy and leverage its artificial intelligence and machine learning (AIML) capabilities; the ability to scale production capability for its BioFactory production system; potential development agreements, partnerships, customer relationships, and licensing arrangements and their contribution to the Company’s financial results, cash usage, and growth strategies; the potential impact of the COVID-19 pandemic on the Company’s business and operating results; and anticipated trends in its business.

These and other forward-looking statements are predictions and projections about future events and trends based on Calyxt’s current expectations, objectives, and intentions and are premised on current assumptions. Calyxt’s actual results, level of activity, performance, or achievements could be materially different than those expressed, implied, or anticipated by forward-looking statements due to a variety of factors, including, but not limited to:

- the impact of increased competition, including competition from a broader array of synthetic biology companies;
- competition for customers, partners, and licensees and the successful execution of development and licensing agreements;
- disruptions at its key facilities, including disruptions impacting its BioFactory production system;
- flaws in AIML algorithms, insufficiency of data inputs required by such algorithms, and human error in interacting with AIML;
- changes in customer preferences and market acceptance of its products; changes in market consensus as to what attributes are required for a product to be considered “sustainable”;
- the impact of adverse events during development, including unsuccessful pilot production of plant-based chemistries or field trials;
- the impact of improper handling of its product candidates during development;
- failures by third-party contractors; inaccurate demand forecasting or milestone and royalty payment projections;
- the effectiveness of commercialization efforts by commercial partners or licensees; disruptions to supply chains, including raw material inputs for its BioFactory;
- the impact of changes or increases in oversight and regulation;
- disputes or challenges regarding intellectual property;
- proliferation and continuous evolution of new technologies; management changes;
- dislocations in the capital markets;

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- the severity and duration of the evolving COVID-19 pandemic and the resulting impact on macro-economic conditions;
- other important factors discussed under the heading “Risk Factors” in this prospectus, as may be amended or supplemented by Calyxt’s subsequent reports on Forms 10-Q and 8-K filed with the SEC.

While the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Any of these factors, in whole or in part, could materially and adversely affect Calyxt’s business, financial condition, results of operations and the price of Calyxt’s common stock.

Any forward-looking statement made by Calyxt in this prospectus and the documents incorporated by reference herein or therein is based only on information currently available to Calyxt and speaks only as of the date of this prospectus or such incorporated document, as the case may be. Calyxt does not assume any obligation to publicly provide revisions or updates to any forward-looking statements after the date of the document in which such statement appears, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by securities and other applicable laws.

You should read this prospectus together with the documents Calyxt has filed with the SEC that are incorporated by reference and any free writing prospectus that the Company may authorize for use in connection with this offering completely and with the understanding that Calyxt’s actual future results may be materially different from what Calyxt currently expects. Calyxt qualifies all of the forward-looking statements in the foregoing documents by these cautionary statements.

USE OF PROCEEDS

If the Warrants are exercised in full, Calyxt will receive proceeds of \$10.9 million. However, Calyxt does not know when, if or the extent to which such Warrants may be exercised, and it is possible that no Warrants may be exercised, in which case Calyxt would not receive any proceeds from this offering.

Calyxt currently intends to use the net proceeds from the exercise of the Warrants for working capital and general corporate purposes, including investments and to support the execution of Calyxt's business model.

Calyxt has not determined the amounts that it plans to spend on any specific area or the timing of such expenditures. Accordingly, Calyxt's management will have broad discretion to use the net proceeds from this offering. Pending Calyxt's use of the net proceeds from this offering, the Company intends to invest the net proceeds in marketable securities that may include investment-grade interest-bearing securities, money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government in accordance with Calyxt's investment policy.

DESCRIPTION OF SECURITIES

Below is a description of the material terms and provisions of Calyxt's amended and restated certificate of incorporation (the "Certificate of Incorporation") and Calyxt's amended and restated bylaws ("By-laws") as well as relevant terms and provisions of Calyxt's indemnification agreements for directors and officers and Delaware law affecting the rights of Calyxt's stockholders. This summary does not purport to be complete and is qualified in its entirety by the provisions of Calyxt's Certificate of Incorporation, By-laws and such indemnification agreements. Copies of Calyxt's Certificate of Incorporation, By-laws and indemnification agreements have been filed with the SEC and are incorporated by reference into the registration statement of which this prospectus forms a part.

General

Calyxt's authorized capital stock consists of 275,000,000 shares of common stock, par value \$0.0001 per share, and 50,000,000 shares of preferred stock, par value \$0.0001 per share. The only equity securities currently outstanding are shares of common stock.

As of March 31, 2022, there were 42,741,763 shares of common stock issued and outstanding.

Common Stock

Voting Rights. The holders of Calyxt's common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Holders of Calyxt's common stock do not have cumulative voting rights in the election of directors. Accordingly, the holders of a majority of the voting power of Calyxt's common stock could, if they so choose, elect all the directors.

Dividend Rights. Holders of common stock are entitled to receive dividends if, as and when declared by Calyxt's Board of Directors, out of Calyxt's legally available assets, in cash, property or shares of Calyxt's capital stock, after payments of dividends required to be paid on outstanding preferred stock, if any.

Distributions in Connection with Mergers or Other Business Combinations. Upon a merger, consolidation or substantially similar transaction, holders of common stock will be entitled to receive equal per share payments or distributions.

Liquidation Rights. Upon Calyxt's liquidation, dissolution or winding up, any business combination or a sale or disposition of all or substantially all of Calyxt's assets, the assets legally available for distribution to Calyxt's stockholders will be distributable ratably among the holders of the common stock, subject to prior satisfaction of all outstanding debts and other liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding preferred stock.

Stockholders Agreement. In connection with Calyxt's IPO, Calyxt entered into a stockholders agreement dated July 25, 2017 with Collectis (as amended from time to time, the "Stockholders Agreement"), pursuant to which Collectis has certain specified rights. Pursuant to the Stockholders Agreement, for so long as Collectis beneficially owns at least 50% of the then-outstanding shares of Calyxt's shares of Common Stock, Collectis has certain rights, including:

- to approve any modification to Calyxt's or any future subsidiary's share capital (e.g., share capital increase or decrease), the creation of any subsidiary, any grant of stock-based compensation, any distributions or initial public offering, merger, spin-off, liquidation, winding up or carve-out transactions;
- to approve Calyxt's annual business plan and annual budget and any modification thereto;

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- to approve any external growth transactions exceeding \$500,000 and not included in the approved annual business plan and annual budget;
- to approve any investment and disposition decisions exceeding \$500,000 and not included in the approved annual business plan and annual budget (excluding the purchase and sale of inventory as a part of the normal course of business);
- to approve any related-party agreement and any agreement or transaction between the executives or stockholders of Calyxt, on the one hand, and Calyxt or any of its subsidiaries, on the other hand;
- to approve any decision pertaining to the recruitment, dismissal/removal, or increase of the compensation of executives and corporate officers;
- to approve any material decision relating to a material litigation;
- to approve any decision relating to the opening of a social or restructuring plan or pre-insolvency proceedings;
- to approve any buyback by Calyxt of its own shares;
- to approve any new borrowings or debts exceeding \$500,000 and early repayment of loans, if any (it being understood that Collectis will approve the entering into of contracts for revolving loans and other short-term loans and the repayment of such for financing general operating activities, such as revolving loans for inventory or factoring of receivables);
- to approve grants of any pledges on securities;
- to develop new activities and businesses not described in the annual business plan and annual budget;
- to approve entry into any material agreement or partnership; and
- to approve any offshore and relocation activities.

In addition, Collectis has the following rights for so long as it beneficially owns at least 15% of the then outstanding shares of Calyxt's common stock, including:

- to nominate the greater of three members of Calyxt's Board of Directors or a majority of the directors;
- to designate the Chairman of Calyxt's Board of Directors and one member to each of the audit committee of the Board of Directors, the compensation committee of the Board of Directors and the nominating and corporation governance committee of the Board of Directors;
- to approve any amendments to Calyxt's Certificate of Incorporation or By-laws that would change the name of the company, its jurisdiction of incorporation, the location of its principal executive offices, the purpose or purposes for which Calyxt is incorporated or the Collectis approval items set forth in the stockholders agreement;
- to approve the payment of any regular or special dividends;
- to approve the commencement of any proceeding for the voluntary dissolution, winding up or bankruptcy of Calyxt or a material subsidiary;
- to approve any public or private offering, merger, amalgamation or consolidation of us or the spinoff of a business of Calyxt's or any sale, conveyance, transfer or other disposition of Calyxt's assets; and
- to approve any change to Calyxt's Board of Directors contrary to the stockholders agreement or the Company's Certificate of Incorporation or By-laws.

Other Matters. Calyxt's Certificate of Incorporation does not entitle holders of Calyxt's common stock to preemptive rights. No redemption or sinking fund provisions apply to Calyxt's common stock. The rights, preferences and privileges of holders of Calyxt's common stock are subject to, and may be adversely affected by, the rights of holders of any series of preferred stock that Calyxt may designate in the future.

Preferred Stock

Calyxt's Certificate of Incorporation authorizes its Board of Directors, without further action by the stockholders (unless so required by applicable law or Nasdaq listing standards), to issue preferred stock in one or more series, to increase or decrease the number of shares of any series subsequent to the issuance of that series, but not below the number of shares of such series then outstanding, and to determine the preferences, limitations and rights of any shares of preferred stock that Calyxt chooses to issue, without vote or action by the stockholders.

Calyxt will fix the designations, powers, preferences and relative, participating, optional or other rights, if any, of the preferred stock of each such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. Calyxt will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that Calyxt files with the SEC, the form of any certificate of designation that sets forth the terms of the series of preferred stock Calyxt is offering before the issuance of that series of preferred stock. If Calyxt offers preferred stock, the terms of the particular series of preferred stock will be described in the applicable prospectus supplement. This description will include (to the extent applicable):

- the designation of the applicable series number of shares of such series Calyxt is offering;
- the purchase price;
- the liquidation preference per share;
- the dividend rate, period and payment date and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on Calyxt's ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into Calyxt's common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
- whether the preferred stock will be exchangeable into other securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
- voting rights, if any, of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if Calyxt liquidates, dissolves or winds up its affairs;
- any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if Calyxt liquidates, dissolves or winds up its affairs; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

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The Delaware General Corporation Law (the “DGCL”) provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to Calyxt’s Certificate of Incorporation if the amendment would change the par value, the number of authorized shares of the class or the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Calyxt’s Board of Directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of Calyxt’s common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of Calyxt and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of Calyxt’s common stock.

Delaware Anti-Takeover Law and Provisions of Calyxt’s Charter and Bylaws

The following provisions may make a change in control of Calyxt’s business more difficult and could delay, defer or prevent a tender offer or other takeover attempt that a stockholder might consider to be in its best interest, including takeover attempts that might result in the payment of a premium to stockholders over the market price for their shares. These provisions also may promote the continuity of Calyxt’s management by making it more difficult for a person to remove or change the incumbent members of Calyxt’s Board of Directors.

Authorized but Unissued Shares; Undesignated Preferred Stock. The authorized but unissued shares of Calyxt’s common stock will be available for future issuance without stockholder approval. These additional shares may be used for a variety of corporate purposes, including future public offerings to raise additional capital, acquisitions and employee benefit plans. In addition, Calyxt’s Board of Directors may authorize, without stockholder approval, the issuance of undesignated preferred stock with voting rights or other rights or preferences designated from time to time by Calyxt’s Board of Directors. The existence of authorized but unissued shares of common stock or preferred stock may enable Calyxt’s Board of Directors to render more difficult or to discourage an attempt to obtain control of Calyxt by means of a merger, tender offer, proxy contest or otherwise.

Election and Removal of Directors. Calyxt’s Board of Directors consists of not less than five nor more than eleven directors, excluding any directors elected by holders of preferred stock pursuant to provisions of any applicable series of preferred stock entitling the holders thereof to separately elect directors. The exact number of directors will be fixed from time to time by resolution of Calyxt’s Board of Directors. As of the date of this prospectus, Calyxt’s Board of Directors has eight members.

Pursuant to the Stockholders Agreement, Collectis has the right to nominate the greater of three directors or a majority of directors to Calyxt’s Board of Directors so long as it continues to own at least 15% of the then-outstanding shares of Calyxt’s common stock.

At any time after Collectis beneficially owns less than 50% of Calyxt’s then outstanding common stock, Calyxt’s Certificate of Incorporation provides that directors may be removed only for cause and only by the affirmative vote of holders of a majority of Calyxt’s then outstanding stock. Prior to such time, directors may be removed with or without cause.

Classified Board of Directors. Calyxt’s Board of Directors currently is not classified. However, Calyxt’s Certificate of Incorporation and By-laws provide that Calyxt’s Board of Directors will be classified with approximately one-third of the directors elected each year at such time as Collectis no longer holds at least 50%

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of Calyxt's then outstanding common stock. The number of directors will be fixed from time to time by a majority of the total number of directors that Calyxt would have at the time such number is fixed if there were no vacancies. The directors will be divided into three classes, designated class I, class II and class III. Each class will consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board of Directors. At each annual meeting of stockholders, successors to the class of directors whose term expires at that annual meeting will be elected for a three-year term and until their successors are duly elected and qualified. In addition, if the number of directors is changed, any increase or decrease will be apportioned by Calyxt's Board of Directors among the classes so as to maintain the number of directors in each class as nearly equal as possible, and any additional director of any class elected to fill a vacancy resulting from an increase in such class or from the removal from office, death, disability, resignation or disqualification of a director or other cause will hold office for a term that will coincide with the remaining term of that class, but in no case will a decrease in the number of directors have the effect of removing or shortening the term of any incumbent director.

Director Vacancies. Calyxt's Certificate of Incorporation authorizes only its Board of Directors to fill vacant directorships.

No Cumulative Voting. Calyxt's Certificate of Incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

Special Meetings of Stockholders. At any time after Collectis beneficially owns less than 50% of Calyxt's then outstanding common stock, Calyxt's By-laws and Certificate of Incorporation provide that special meetings of its stockholders may only be called by the Board of Directors. Prior to such time, a special meeting may also be called by the secretary of the Company at the request of stockholders holding a majority of the outstanding shares entitled to vote.

Advance Notice Procedures for Director Nominations. Calyxt's By-laws establish advance notice procedures for stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders. Although Calyxt's By-laws do not give the Board of Directors the power to approve or disapprove stockholder nominations of candidates to be elected at an annual meeting, the By-laws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the Company.

Action by Written Consent. At any time after Collectis beneficially owns less than 50% of Calyxt's then outstanding common stock, Calyxt's By-laws and Certificate of Incorporation provide that any action required or permitted to be taken by the stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by any consent in writing in lieu of a meeting of such stockholders, subject to the rights of the holders of any series of preferred stock. Prior to such time, such actions may be taken without a meeting by written consent.

Amending Calyxt's Certificate of Incorporation and Bylaws. At any time after Collectis beneficially owns less than 50% of Calyxt's then outstanding common stock, Calyxt's Certificate of Incorporation and By-laws may be amended by the affirmative vote of the holders of at least two-thirds of Calyxt's common stock. Prior to such time, Calyxt's Certificate of Incorporation and By-laws may be amended by the affirmative vote of the holders of a majority of the voting power of Calyxt's common stock.

Exclusive Jurisdiction. Calyxt's Certificate of Incorporation provides that, unless it consents to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any derivative action or proceeding brought on Calyxt's behalf, any action asserting a claim of breach of fiduciary duty owed by any of the Company's directors, officers, or other employees to Calyxt or to its stockholders, any action asserting a claim arising pursuant to the DGCL, or any action asserting a claim governed by the internal affairs doctrine. Notwithstanding the foregoing, because the Exchange Act creates exclusive

federal jurisdiction over all suits brought to enforce duties or liabilities created by the Exchange Act or the rules and regulations thereunder, the exclusive forum provision does not apply to any action arising under the Exchange Act. Although the exclusive forum provision applies, to the extent permitted by law, to Securities Act claims, the Securities Act creates concurrent federal and state jurisdiction over suits brought to enforce duties or liabilities created by the Securities Act or the rules and regulations thereunder. Accordingly, there is uncertainty as to whether a court would enforce this exclusive forum provision with respect to a Securities Act claim. Neither Calyxt nor its stockholders may waive compliance with the federal securities laws or the rules and regulations thereunder.

Business Combinations with Interested Stockholders. Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an “interested stockholder” (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless (i) prior to such time the Board of Directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (A) by persons who are directors and also officers of such corporation and (B) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) at or subsequent to such time the business combination is approved by the Board of Directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

A Delaware corporation may “opt out” of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders’ amendment approved by at least a majority of the outstanding voting shares. Calyxt has expressly elected not to be governed by the “business combination” provisions of Section 203 of the DGCL until after such time as Collectis no longer beneficially owns at least 50% of Calyxt’s common stock. At that time, such election shall be automatically withdrawn and Calyxt will thereafter be governed by the “business combination” provisions of Section 203 of the DGCL.

Conflicts of Interest

Delaware law permits corporations to adopt provisions renouncing any interest or expectancy in certain opportunities that are presented to the corporation or its officers, directors or stockholders. Calyxt’s Certificate of Incorporation renounces, to the maximum extent permitted from time to time by Delaware law, any interest or expectancy that Calyxt has in, or right to be offered an opportunity to participate in, specified business opportunities that are from time to time presented to Calyxt’s officers, directors or stockholders or their respective affiliates, other than those officers, directors, stockholders or affiliates who are Calyxt’s or its subsidiaries’ employees. Calyxt’s Certificate of Incorporation provides that, to the fullest extent permitted by law, none of Collectis or any of its affiliates or any director who is not employed by Calyxt, or his or her affiliates has any duty to refrain from (i) engaging in a corporate opportunity in the same or similar lines of business in which Calyxt or its subsidiaries now engage or propose to engage or (ii) otherwise competing with Calyxt or its subsidiaries. In addition, to the fullest extent permitted by law, in the event that Collectis or any non-employee director acquires knowledge of a potential transaction or other business opportunity which may be a corporate opportunity for itself or himself or its or his affiliates or for Calyxt or its affiliates, such person has no duty to communicate or offer such transaction or business opportunity to Calyxt or any of its affiliates and they may take any such opportunity for themselves or offer it to another person or entity. Calyxt’s Certificate of Incorporation does not renounce its interest in any business opportunity that is expressly offered to a

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non-employee director solely in his or her capacity as a director of Calyxt. To the fullest extent permitted by law, no business opportunity will be deemed to be a potential corporate opportunity for Calyxt unless Calyxt would be permitted to undertake the opportunity under its Certificate of Incorporation, Calyxt has sufficient financial resources to undertake the opportunity and the opportunity would be in line with Calyxt's business.

Registration Rights

The Stockholders Agreement provides Collectis with certain registration rights, as follows:

Demand Registration—Collectis may request that Calyxt register for resale all or a portion of their shares. Any such request must cover a quantity of shares with an anticipated aggregate offering price of at least \$25.0 million. To the extent Calyxt is a well-known seasoned issuer, Collectis may also request that Calyxt file an automatic shelf registration statement on Form S-3 that covers the registrable securities requested to be registered. Depending on certain conditions, Calyxt may defer a demand registration for up to 90 days in any twelve month period. Collectis will agree pursuant to a contractual lock-up not to exercise any of its rights under the registration rights agreement during a 90-day restricted period.

Piggyback Registration Rights—In the event that Calyxt proposes to register any of its securities under the Securities Act of 1933, either for its own account or for the account of its other security holders, Collectis is entitled to certain piggyback registration rights allowing it to include its shares in the registration, subject to certain marketing and other limitations. As a result, whenever Calyxt proposes to file a registration statement under the Securities Act, Collectis is entitled to notice of the registration.

Expenses; Indemnification—The registration rights provides that Calyxt must pay all registration expenses (other than the underwriting discounts and commissions) in connection with effecting any demand registration or shelf registration. The registration rights contain customary indemnification and contribution provisions.

Term—The registration rights will remain in effect with respect to any shares covered by the Stockholders Agreement until (i) all of Collectis' shares have been sold pursuant to an effective registration statement under the Securities Act; (ii) all of Collectis' shares have been sold to the public pursuant to Rule 144 under the Securities Act; or (iii) Collectis owns less than 10% of the then outstanding shares of Calyxt's common stock.

Indemnification and Limitations on Directors' Liability

Section 145 of the DGCL grants each Delaware corporation the power to indemnify any person who is or was a director, officer, employee or agent of a corporation, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, by reason of serving or having served in any such capacity, if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. A Delaware corporation may similarly indemnify any such person in actions by or in the right of the corporation if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect of any claim, issue or matter as to which the person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which the action was brought determines that, despite adjudication of liability, but in view of all of the circumstances of the case, the person is fairly and reasonably entitled to indemnity for expenses which the Delaware Court of Chancery or other court shall deem proper.

Section 102(b)(7) of the DGCL enables a corporation in its certificate of incorporation, or an amendment thereto, to eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary

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damages for violations of the director's fiduciary duty as a director, except (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the DGCL (providing for director liability with respect to unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which a director derived an improper personal benefit.

Calyxt's Certificate of Incorporation indemnifies its directors and principal officers to the fullest extent permitted by Delaware law and Calyxt's Certificate of Incorporation also allows Calyxt's Board of Directors to indemnify other employees. This indemnification extends to the payment of judgments in actions against officers and directors and to reimbursement of amounts paid in settlement of such claims or actions and may apply to judgments in favor of the corporation or amounts paid in settlement to the corporation. This indemnification also extends to the payment of attorneys' fees and expenses of principal officers and directors in suits against them where the officer or director acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, Calyxt's best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. This right of indemnification is not exclusive of any right to which the officer or director may be entitled as a matter of law.

Calyxt's directors and officers are insured pursuant to a "directors and officers" insurance policy, which provides protection against un-indemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for losses incurred by Calyxt in response to securities claims involving directors and officers. The policy contains various customary exclusions for policies of this type.

In addition, Calyxt's Board of Directors has adopted a policy to enter into an indemnification agreement with each of its directors and officers, which provide for certain advancement and indemnification rights. Each indemnification agreement provides, subject to certain exceptions, to indemnify and hold harmless the director or officer to the fullest extent permitted by Delaware law.

With respect to any indemnification available to directors affiliated with Collectis, Calyxt has agreed (i) that it is the indemnitor of first resort with respect to any amounts incurred or sustained in connection with such person's role as a director of Calyxt, (ii) that it will be responsible for, and required to advance, the full amount of such amounts without regard to any rights such person may have, or be pursuing, against Collectis, and (iii) to irrevocably waive, relinquish and release Collectis from any and all claims for contribution, subrogation or any other recovery in respect of such amounts.

Calyxt believes that the limitation of liability and indemnification provisions in its Certificate of Incorporation, By-laws, indemnification agreements and insurance policies are necessary to attract and retain qualified directors and officers. However, these provisions may discourage derivative litigation against directors and officers, even though an action, if successful, might benefit Calyxt and its stockholders. Furthermore, a stockholder's investment may be adversely affected to the extent Calyxt pays the costs of settlement and damage awards against directors and officers as required or allowed by these limitations of liability and indemnification provisions.

At present, there is no pending litigation or proceeding involving any of Calyxt's directors, officers, employees or agents as to which indemnification is sought from Calyxt, nor is the Company aware of any threatened litigation or proceeding that may result in an indemnification claim.

Listing

Calyxt's shares of common stock are listed on the Nasdaq Global Market under the symbol "CLXT."

Transfer Agent and Registrar

The transfer agent and registrar for Calyxt's common stock is Broadridge Corporate Issuer Solutions, Inc., 1155 Long Island Avenue, Edgewood, NY 11717.

Warrants

The following is a brief summary of certain terms and provisions of the Warrants pursuant which shares of common stock may be issued under this prospectus upon the exercise thereof. This summary is subject to and qualified in its entirety by the form of Warrants, which is attached as Exhibit 4.3 to the registration statement of which this prospectus forms a part.

General Terms of the Warrants

The Warrants represent the right to purchase 7,760,000 shares of common stock at an initial exercise price of \$1.41 per share. Each Warrant may be exercised at any time beginning on the six-month anniversary of the issuance date and from time to time thereafter through and including the five-year anniversary of the date the Warrants are first exercisable. After the exercise period, holders of the Warrants will have no further rights to exercise the Warrants.

Exercisability

Each Warrant will be exercisable beginning on the six month anniversary of the date of issuance and will expire five years from the date of issuance. The Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to Calyxt a duly executed exercise notice and payment in full for the number of shares of Calyxt's common stock purchased upon such exercise, except in the case of a cashless exercise as discussed below.

The number of shares of common stock issuable upon exercise of the Warrants is subject to adjustment in certain circumstances, including a stock split of, stock dividend on, or a subdivision, combination or recapitalization of the common stock.

Cashless Exercise

If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for issuance or resale of the shares issuable upon exercise of the Warrant, the holder may exercise the Warrant on a cashless basis. When exercised on a cashless basis, a portion of the Warrant is cancelled in payment of the purchase price payable in respect of the number of shares of Calyxt's common stock purchasable upon such exercise.

Exercise Price

Each Warrant represents the right to purchase one share of common stock at an exercise price of \$1.41 per share. Subject to limited exceptions, a holder of Warrants will not have the right to exercise any portion of the Warrant to the extent that, after giving effect to the exercise, the holder, together with its affiliates, and any other person acting as a group together with the holder or any of its affiliates, would beneficially own in excess of 4.99 percent of the number of shares of Calyxt's common stock outstanding immediately after giving effect to its exercise (the "Beneficial Ownership Limitation"). The holder, upon notice to the Company, may increase or decrease the beneficial ownership limitation provisions of the Warrant, provided that in no event shall the limitation exceed 9.99 percent of the number of shares of Calyxt's common stock outstanding immediately after giving effect to the exercise of the Warrant. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to Calyxt. Purchasers of Warrants in this offering may also elect prior to the issuance of the Warrants to those purchasers to have the initial exercise limitation set at 9.99 percent of Calyxt's outstanding common stock.

Certain Adjustments

The exercise price and number of shares of common stock issuable upon exercise of the warrants may be proportionally adjusted upon the occurrence of specific events, including stock dividends, stock splits, combinations and certain recapitalizations of Calyxt's common stock.

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Rights Upon Distribution of Assets; Purchase Rights

If Calyxt distributes assets, including cash dividends, any securities (other than a stock dividend of Calyxt Common Stock, described under “— Certain Adjustments”) or other property, to Calyxt’s stockholders, the warrant holders shall be entitled to participate in such distribution to the same extent that such holder would have participated had the holder held the number of shares of common stock acquirable upon complete exercise of its warrant. If such distribution would cause such holder to exceed the Beneficial Ownership Limitation, the holder will not be entitled to participate in the distribution to such extent that Beneficial Ownership Limitation would be exceeded and the distribution will be held in abeyance for the holder’s benefit until such time or times, if ever, as would not result in the holder exceeding the Beneficial Ownership Limitation.

If Calyxt grants, issues or sells pro rata to its stockholders, any options, convertible securities or rights to purchase stock, warrants, securities or other property, the Warrant holders will be entitled to acquire such purchase rights to the same extent such holder would have acquired had the holder held the number of shares of common stock acquirable upon complete exercise of its warrant. If such right to participate in any such purchase rights would cause such holder to exceed Beneficial Ownership Limitation, then the holder will not be entitled to participate in such purchase right to such extent that the Beneficial Ownership Limitation would be exceeded such purchase right, to the extent necessary to prevent such occurrence, will be held in abeyance for the holder’s benefit until such time or times, if ever, as would not result in the holder exceeding the Beneficial Ownership Limitation.

Transferability

Subject to applicable laws and restrictions, a holder may transfer a Warrant upon surrender of the Warrant to Calyxt with a duly executed assignment in the form attached to the Warrant. The transferring holder will be responsible for any tax that liability that may arise as a result of the transfer.

No Listing

There is no established public trading market for the Warrants and Calyxt does not expect a market to develop. In addition, Calyxt does not intend to apply for listing of the Warrants on any securities exchange or trading system. Without an active market, the liquidity of the Warrants will be limited.

Rights as Stockholder

Except as otherwise provided or by virtue of such holder’s ownership of shares of Calyxt’s common stock, the holder of a Warrant, solely in such holder’s capacity as a holder of a Warrant, will not be entitled to vote, to receive dividends, or to any of the other rights of Calyxt’s stockholders.

Fundamental Transactions

In the event Calyxt (or Calyxt and all of its subsidiaries, taken as a whole) effects certain mergers, consolidations, sales of substantially all of its assets, tender or exchange offers, reclassifications or share exchanges in which its common stock is effectively converted into or exchanged for other securities, cash or property, Calyxt consummates a business combination in which another person acquires 50% of the outstanding shares of its common stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by Calyxt’s issued and outstanding common stock, then, upon any subsequent exercise of the Warrants, the holders of the Warrants will have the right to receive any shares of the acquiring corporation or other consideration it would have been entitled to receive if it had been a holder of the number of shares of common stock then issuable upon exercise of the Warrants. Additionally, as more fully described in the Warrants, in the event of certain fundamental transactions, the holders of the Warrants will be entitled to receive consideration in an amount equal to the Black Scholes value of the Warrants on the date of the consummation of such fundamental transaction.

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Amendments and Waivers

The provisions of each Warrant may be modified or amended or the provisions thereof waived with the written consent of Calyxt and the holder.

No Fractional Shares

No fractional shares or scrip representing fractional shares shall be issued upon the exercise of the Warrants. As to any fraction of a share which the holder would otherwise be entitled to purchase upon such exercise, Calyxt shall or shall cause, at Calyxt's option, the payment of a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price of the Warrant per whole share or round such fractional share up to the nearest whole share.

DILUTION

If you purchase shares of Calyxt's common stock upon the exercise of your Warrant, you will experience immediate and substantial dilution to the extent of the difference between the exercise price per share and the adjusted net tangible book value per share of Calyxt's common stock as of March 31, 2022, as adjusted to give effect to the exercise of all outstanding Warrants.

Calyxt's net tangible book value as of March 31, 2022, was \$14.9 million, or \$0.35 per share of common stock. Net tangible book value per share is determined by dividing Calyxt's total tangible assets, less total liabilities, by the number of shares of Calyxt's common stock outstanding as of March 31, 2022. Dilution with respect to net tangible book value per share represents the difference between the Warrant exercise price per share paid by purchasers exercising Warrants and the net tangible book value per share of Calyxt's common stock immediately after giving effect to the exercise of all outstanding Warrants.

After giving effect to the exercise of all outstanding Warrants and the issuance of 3,880,000 shares of common stock in connection with the full exercise on May 4, 2022 of all outstanding Pre-Funded Warrants, Calyxt's as adjusted net tangible book value as of March 31, 2022 would have been approximately \$25.9 million, or \$0.48 per share of common stock. This represents an immediate increase in net tangible book value of \$0.13 per share to existing stockholders and immediate dilution of \$0.93 per share to new investors exercising Warrants. The following table illustrates this dilution on a per share basis:

Warrant exercise price per share	\$1.41
Net tangible book value per share as of March 31, 2022	\$0.35
Increase in net tangible book value per share attributable to this offering	<u>0.13</u>
As adjusted net tangible book value per share as of March 31, 2022, after giving effect to the exercise of all outstanding Warrants and the exercise of Pre-Funded Warrants	<u>0.48</u>
Dilution per share to investors exercising Warrants	<u>\$0.93</u>

The number of shares of common stock to be outstanding after this offering is based on 42,741,763 shares outstanding as of March 31, 2022, and as of that date:

- excludes 5,770,344 shares of common stock issuable upon the exercise of outstanding stock options with a weighted average exercise price of \$7.65 per share;
- excludes 1,497,418 shares of common stock issuable upon the vesting and settlement of restricted stock units outstanding;
- excludes 1,275,000 shares of common stock issuable upon the vesting and settlement of performance stock units outstanding; and
- excludes 3,013,121 shares of common stock reserved for future issuance under Calyxt's 2017 Omnibus Plan; and
- gives effect to the issuance of 3,880,000 shares of common stock in connection with the full exercise on May 4, 2022 of all outstanding Pre-Funded Warrants.

The above illustration of dilution per share to investors exercising outstanding Warrants assumes no further exercise of outstanding options and no further issuance of shares upon vesting of outstanding restricted stock units or performance units. To the extent that any outstanding options are exercised or other shares are issued upon vesting of outstanding awards or otherwise, there will be further dilution to new investors. In addition, Calyxt may choose to raise additional capital. To the extent that Calyxt raises additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to Calyxt's stockholders.

PLAN OF DISTRIBUTION

The common stock referenced on the cover page of this prospectus will be offered solely by Calyxt and will be issued and sold upon the exercise of the Warrants described herein. For the holders of Warrants to exercise the Warrants, the shares issuable upon exercise must either be registered under the Securities Act or exempt from registration. If a registration statement registering the issuance of the shares of common stock underlying the Warrants under the Securities Act is not effective or available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the Warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the Warrant.

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

Subject to the limitations, assumptions and qualifications described herein, the following is a summary of certain U.S. federal income tax considerations of the purchase, ownership and disposition of shares of Calyxt's common stock issued pursuant to this offering (the "Shares"), the purchase, exercise, disposition and lapse of Warrants to purchase shares of Calyxt's common stock issued pursuant to this offering, and the purchase, ownership and disposition of shares of Calyxt's common stock issuable upon exercise of the Warrants (the "Warrant Shares"). The Shares, the Warrants and the Warrant Shares are collectively referred to herein as the "Offered Securities." All prospective holders of the Offered Securities should consult their tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of the Offered Securities.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), existing U.S. Treasury regulations promulgated thereunder, published administrative pronouncements and rulings of the U.S. Internal Revenue Service (the "IRS"), and judicial decisions, all as in effect as of the date of this prospectus. These authorities are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to holders described in this discussion. There can be no assurance that a court or the IRS will not challenge one or more of the tax consequences described herein, and Calyxt has not obtained, nor does it intend to obtain, a ruling with respect to the U.S. federal income tax consequences to a holder of the purchase, ownership or disposition of the Offered Securities.

This discussion addresses only Offered Securities that are held as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all the U.S. federal income tax consequences that may be relevant to particular holders in light of their individual circumstances, nor does it address any alternative minimum, Medicare contribution, estate or gift tax consequences, or any aspects of U.S. state, local or non-U.S. taxes). It does not address holders that are subject to special rules, such as:

- banks, insurance companies or other financial institutions;
- tax-exempt organizations or governmental organizations;
- brokers or dealers in securities;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons who hold any of the Offered Securities as a position in a hedging transaction, "straddle," "conversion transaction," or other risk reduction transaction;
- persons deemed to sell any of the Offered Securities under the constructive sale provisions of the Code;
- entities or arrangements classified as partnerships for U.S. federal income tax purposes or other pass-through entities such as subchapter S corporations (or investors in such entities or arrangements);
- regulated investment companies or real estate investment trusts;
- controlled foreign corporations, passive foreign investment companies or corporations that accumulate earnings to avoid U.S. federal income tax;
- U.S. Holders (as defined below) whose functional currency is not the U.S. dollar;
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds;
- U.S. expatriates and former citizens or former long-term residents of the United States; or
- holders that acquire the Offered Securities through the exercise of an employee stock option or otherwise as compensation or through a tax-qualified retirement plan.

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If a holder is a partnership or other pass-through entity (including an entity or arrangement treated as a partnership or other type of pass-through entity for U.S. federal income tax purposes), the U.S. federal income tax treatment of a partner or beneficial owner will generally depend on the status of such partner or beneficial owner and the entity's activities. Partnerships, partners and beneficial owners in partnerships or other pass-through entities that own the Offered Securities should consult their tax advisors as to the particular U.S. federal income tax considerations applicable to the acquisition, ownership and disposition of the Offered Securities.

For purposes of this discussion, a "U.S. Holder" is a beneficial owner of the Offered Securities, that, for U.S. federal income tax purposes, is:

- an individual that is a citizen or resident of the United States;
- a corporation, or an entity treated as a corporation, created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- a trust that (1) is subject to (A) the primary supervision of a court within the United States and (B) the authority of one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) to control all substantial decisions of the trust or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a United States person; or
- an estate that is subject to U.S. federal income tax on its income regardless of its source.

As used herein, the term "Non-U.S. Holder" means a beneficial owner, other than an entity treated as a partnership for U.S. federal income tax purposes, of the Offered Securities that is for U.S. federal income tax purposes not a U.S. Holder.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSEQUENCES TO THEM OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE OFFERED SECURITIES.

Allocation of Purchase Price

Each Share and Warrant is expected to be treated for U.S. federal income tax purposes as an investment unit consisting of one Share and one Warrant. In determining the tax basis of each Share and Warrant constituting a unit, holders should allocate their purchase price for the unit between the Share and Warrant on the basis of their relative fair market values at the time of issuance. Calyxt does not intend to advise holders of the Offered Securities with respect to this determination. A holder's allocation of the purchase price between the Shares Warrants is not binding on the IRS or the courts, and no assurance can be given that the IRS or the courts will agree with a holder's allocation. All holders are advised to consult their tax and financial advisors with respect to the relative fair market values of the Shares and Warrants for U.S. federal income tax purposes.

Tax Considerations Applicable to U.S. Holders

Distributions on Shares and Warrant Shares

Calyxt does not anticipate declaring or paying any cash dividends to holders of Calyxt's common stock in the foreseeable future. If Calyxt makes distributions of cash or other property on the Shares or Warrant Shares (other than certain distributions of stock), such distributions will constitute dividends to the extent paid out of Calyxt's current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Dividends received by a corporate U.S. Holder may be eligible for a dividends received deduction, subject to applicable limitations. Dividends received by certain non-corporate U.S. Holders, including individuals, are generally taxed at the lower applicable capital gains rate provided certain holding period and other requirements are satisfied. Distributions in excess of Calyxt's current and accumulated earnings and profits will constitute a

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return of capital and first be applied against and reduce a U.S. Holder's adjusted tax basis in its Shares or Warrant Shares, as applicable, but not below zero. Any excess will be treated as capital gain and will be treated as described below under "—Sale or Other Taxable Disposition of the Shares and Warrant Shares."

Sale or Other Taxable Disposition of the Shares and Warrant Shares

Upon the sale, exchange or other taxable disposition of the Shares or Warrant Shares, a U.S. Holder will generally recognize capital gain or loss equal to the difference between the amount of cash and the fair market value of any property received upon the sale, exchange or other taxable disposition and such U.S. Holder's adjusted tax basis in the Shares or Warrant Shares. This capital gain or loss will be long term capital gain or loss if the U.S. Holder's holding period in such Shares or Warrant Shares is more than one year at the time of the sale, exchange or other taxable disposition. Long-term capital gains recognized by certain non-corporate U.S. Holders, including individuals, generally will be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to certain limitations.

Sale or Other Disposition or Exercise of Warrants

Upon the sale, exchange or other disposition of a Warrant (other than by exercise), a U.S. Holder will generally recognize capital gain or loss equal to the difference between the amount realized on the sale, exchange or other disposition and the U.S. Holder's tax basis in the Warrant. This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in such Warrant is more than one year at the time of the sale, exchange or other disposition. The deductibility of capital losses is subject to certain limitations.

In general, a U.S. Holder will not be required to recognize income, gain or loss upon exercise of a Warrant for its exercise price. A U.S. Holder's tax basis in Warrant Shares received upon exercise of Warrants will be equal to the sum of (i) the U.S. Holder's tax basis in the Warrants exchanged therefor and (ii) the exercise price of such Warrants. A U.S. Holder's holding period in the Warrant Shares received upon exercise will commence on the day after such U.S. Holder exercises the Warrants. Although there is no direct legal authority as to the U.S. federal income tax treatment of an exercise of a warrant on a cashless basis, Calyxt intends to take the position that such exercise will not be taxable, either because the exercise is not a gain realization event or because it qualifies as a tax-free recapitalization. In the former case, the holding period of Warrant Shares received upon exercise of Warrants should commence on the day after the Warrants are exercised. In the latter case, the holding period of the Warrant Shares received upon exercise of Warrants would include the holding period of the exercised Warrants. However, Calyxt's position is not binding on the IRS and the IRS may treat a cashless exercise of a warrant as a taxable exchange. U.S. Holders are urged to consult their tax advisors as to the consequences of an exercise of a Warrant on a cashless basis, including with respect to their holding period and tax basis in the Warrant Shares received.

Lapse of Warrants

If a Warrant expires without being exercised, a U.S. Holder will recognize a capital loss in an amount equal to such U.S. Holder's tax basis in the warrant. Such loss will be long-term capital loss if, at the time of the expiration, the U.S. Holder's holding period in such warrant is more than one year. The deductibility of capital losses is subject to certain limitations.

Certain Adjustments to and Distributions on Warrants

Under Section 305 of the Code, an adjustment to the number of Warrant Shares that will be issued on the exercise of the Warrants, or an adjustment to the exercise price of the Warrants (or in certain circumstances, there is a failure to make adjustments), may be treated as a constructive distribution to a U.S. Holder of the Warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. Holder's proportionate interest in Calyxt's earnings and profits as determined under U.S. federal income tax principles or Calyxt's assets,

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depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to Calyxt's shareholders). Such distributions will constitute dividends to the extent deemed paid out of Calyxt's current or accumulated earnings and profits, as discussed above under "Distributions on Shares and Warrant Shares." U.S. Holders should consult their tax advisors regarding the proper treatment of any adjustments to the number of Warrant Shares that will be issued on the exercise of the Warrants or the exercise price of the Warrants.

In addition, if Calyxt were to make a distribution in cash or other property with respect to its common stock after the issuance of the Warrants, then Calyxt may, in certain circumstances, make a corresponding distribution to holders of Warrants. The taxation of a distribution received with respect to a Warrant is unclear. It is possible such a distribution would be treated as a distribution (or constructive distribution), although other treatments are possible. U.S. Holders should consult their tax advisors regarding the proper treatment of distributions received with respect to Warrants.

Backup Withholding and Information Reporting

In general, backup withholding and information reporting requirements may apply to payments on the Offered Securities and to the receipt of proceeds on the sale, exchange or other taxable disposition of the Offered Securities. Backup withholding (currently at a rate of 24 percent) may apply if a U.S. Holder fails to furnish its taxpayer identification number, a U.S. Holder fails to certify under penalties of perjury that such taxpayer identification number is correct and that such U.S. Holder is not subject to backup withholding (generally on a properly completed and duly executed IRS Form W-9), the applicable withholding agent is notified by the IRS that the holder previously failed to properly report payments of interest or dividends, or such U.S. Holder otherwise fails to comply with the applicable requirements of the backup withholding rules.

Certain U.S. Holders generally are not subject to backup withholding and information reporting requirements, provided that their exemptions from backup withholding and information reporting are properly established. Backup withholding is not an additional tax. Any amounts withheld from a payment to a U.S. Holder under the backup withholding rules generally will be allowed as a credit against such U.S. Holder's U.S. federal income tax liability and may entitle such U.S. Holder to a refund, provided the required information is furnished to the IRS in a timely manner. U.S. Holders should consult their tax advisors regarding the application of backup withholding, the availability of an exemption from backup withholding, and the procedure for obtaining such an exemption, if available.

Tax Considerations Applicable to Non-U.S. Holders

Distributions on Shares and Warrant Shares

As mentioned above, Calyxt does not anticipate declaring or paying any cash dividends to holders of Calyxt's common stock in the foreseeable future. However, distributions of cash or other property (other than certain distributions of stock) on the Shares or Warrant Shares will constitute dividends to the extent paid out of Calyxt's current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. Distributions in excess of Calyxt's current and accumulated earnings and profits will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder's adjusted tax basis in its common stock, but not below zero. Any excess will be subject to the treatment as described below under "— Gain on Sale or Other Taxable Disposition of the Offered Securities".

Dividends paid to a Non-U.S. Holder that are not effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States generally will be subject to withholding tax at a 30-percent rate or a reduced rate specified by an applicable income tax treaty. In order to obtain a reduced rate of withholding, the Non-U.S. Holder will be required to provide Calyxt or Calyxt's paying agent with a properly executed applicable IRS Form W-8BEN or IRS Form W-8BEN-E (or appropriate successor form), as applicable, certifying under

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penalties of perjury that the Non-U.S. Holder is not a United States person and is eligible for the benefits under the applicable tax treaty. These forms may need to be periodically updated. If a Non-U.S. Holder holds the Offered Securities through a financial institution or other intermediary, the Non-U.S. Holder generally will be required to provide the appropriate documentation to the financial institution or other intermediary. A Non-U.S. Holder eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty who fails to timely provide an IRS Form W-8BEN or W-8BEN-E, as applicable, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim with the IRS.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), the Non-U.S. Holder will generally be taxed on the dividends in the same manner as a U.S. Holder. In this case, the Non-U.S. Holder will be exempt from the withholding tax discussed in the preceding paragraph, although the Non-U.S. Holder will be required to provide a properly executed IRS Form W-8ECI (or appropriate successor form) in order to claim an exemption from withholding. Such effectively connected dividends, although not subject to U.S. federal withholding tax, are subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates generally applicable to Non-U.S. Holders. Dividends received by a corporate Non-U.S. Holder that are effectively connected with such Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States) may be subject to an additional branch profits tax at a 30-percent rate (or such lower rate as may be specified by an applicable income tax treaty). Non-U.S. Holders should consult their tax advisors with respect to other U.S. tax consequences of the acquisition, ownership and disposition of the Offered Securities, including the possible imposition of the branch profits tax.

Exercise of Warrants

A Non-U.S. Holder generally will not recognize gain or loss on the exercise of a Warrant and the related receipt of Warrant Shares. However, if a cashless exercise of Warrants results in a taxable exchange, as described above under “—Tax Considerations Applicable to U.S. Holders— Sale or Other Disposition or Exercise of Warrants,” the rules described below under “Gain on Sale or Other Taxable Disposition of the Offered Securities” would apply.

Gain on Sale or Other Taxable Disposition of the Offered Securities

Subject to the discussions below under “—Information Reporting and Backup Withholding” and “—FATCA,” a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on gain realized on a sale, exchange or other taxable disposition of the Offered Securities unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States),
- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- Calyxt is or has been a “United States real property holding corporation,” as defined in the Code, at any time within the five-year period ending on the date of disposition or the Non-U.S. Holder's holding period, whichever period is shorter, and the Non-U.S. Holder is not eligible for an exemption under an applicable income tax treaty.

Calyxt believes that it is not, and does not anticipate becoming, a United States real property holding corporation. Even if Calyxt is or has been a United States real property holding corporation during the specified testing period, as long as Calyxt's common stock is regularly traded on an established securities market (such as

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the Nasdaq Global Market) at any time during the calendar year in which the disposition occurs, a Non-U.S. Holder will not be subject to U.S. federal income tax on the disposition of Shares or Warrant Shares if the Non-U.S. Holder does not own or has not owned (actually or constructively) more than 5 percent of Calyxt's common stock at any time during the shorter of the two periods mentioned above. Special rules may apply to the determination of the 5-percent threshold in the case of a Non-U.S. Holder of Warrants. Non-U.S. Holders are urged to consult their tax advisors regarding the effect of holding Warrants on the calculation of such 5-percent threshold. Non-U.S. Holders should consult their tax advisors regarding the application of this regularly traded exception.

In addition, although a 15% withholding tax generally applies to gross proceeds from the sale or other taxable disposition of the stock of or certain other interests in a United States real property holding company, such 15% withholding tax generally will not apply to the disposition of Shares or Warrant Shares so long as Calyxt's common stock is regularly traded on an established securities market. However, the exception described in the previous sentence may not apply to certain dispositions of Warrants if the Non-U.S. Holder exceeds the 5-percent threshold mentioned above.

If a Non-U.S. Holder recognizes gain on a sale, exchange or other disposition of the Offered Securities that is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States (and if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), the Non-U.S. Holder will generally be subject to U.S. federal income tax at the regular graduated U.S. federal income tax rates generally applicable to a United States person. If the Non-U.S. Holder is a corporation, the Non-U.S. Holder may also be subject to the branch profits tax at a 30-percent rate or such lower rate as may be specified by an applicable income tax treaty. Non-U.S. Holders should consult their tax advisors with respect to other U.S. tax consequences of the acquisition, ownership and disposition of the Offered Securities, including the possible imposition of the branch profits tax.

Certain Adjustments to and Distributions on Warrants

As discussed above under “—Tax Considerations Applicable to U.S. Holders—Certain Adjustments to and Distributions on Warrants,” certain adjustments to the number of Warrant Shares on the exercise of the Warrants, or an adjustment to the exercise price of the Warrants (or certain failures to make adjustments), may be deemed to be the payment of a distribution with respect to the Warrants. Such a deemed distribution could be deemed to be the payment of a dividend to a Non-U.S. Holder to the extent of Calyxt's earnings and profits, notwithstanding the fact that such Holder will not receive a cash payment. In the event of such a deemed dividend, Calyxt may be required to withhold tax from subsequent distributions of cash or property to Non-U.S. Holders. Non-U.S. Holders should consult their tax advisors regarding the proper treatment of any adjustments to the Warrants.

In addition, as discussed above under “—Tax Considerations Applicable to U.S. Holders— Certain Adjustments to and Distributions on Warrants,” the taxation of a distribution received with respect to a Warrant is unclear. It is possible such a distribution would be treated as a distribution (or constructive distribution), although other treatments are possible. Non-U.S. Holders should consult their tax advisors regarding the U.S. withholding tax and other U.S. tax consequences of distributions received with respect to Warrants.

Information Reporting and Backup Withholding

Information returns will be filed with the IRS in connection with payments of dividends on the Offered Securities. Copies of the information returns reporting those dividends and withholding may also be made available to the tax authorities in the country in which a Non-U.S. Holder is a resident under the provisions of an applicable income tax treaty or agreement. Unless a Non-U.S. Holder complies with certification procedures to establish that the Non-U.S. Holder is not a United States person, information returns may also be filed with the IRS in connection with the proceeds from a sale, exchange or other disposition of the Offered Securities to or through the U.S. office (and, in certain cases, the foreign office) of a broker.

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A Non-U.S. Holder may be subject to backup withholding (currently at a rate of 24 percent) on payments on the Offered Securities or on the proceeds from a sale, exchange or other disposition of the Offered Securities unless the Non-U.S. Holder complies with certification procedures to establish that the Non-U.S. Holder is not a United States person or otherwise establishes an exemption. Compliance with the certification procedures required to claim a reduced rate of withholding under a treaty (including properly certifying non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 (or appropriate successor form)) generally will satisfy the certification requirements necessary to avoid backup withholding as well. Notwithstanding the foregoing, U.S. federal backup withholding may apply if the payor has actual knowledge, or reason to know, that a holder is a United States person.

Backup withholding is not an additional tax. Any amounts withheld from a payment to a Non-U.S. Holder under the backup withholding rules generally will be allowed as a credit against such Non-U.S. Holder's U.S. federal income tax liability and may entitle such Non-U.S. Holder to a refund, provided the required information is furnished to the IRS in a timely manner. Non-U.S. Holders are urged to consult their tax advisors regarding the application of backup withholding and the availability of and procedure for obtaining an exemption from backup withholding in their particular circumstances.

FATCA

Provisions of the Code commonly referred to as "FATCA" require withholding of 30 percent on payments of dividends on the Offered Securities, as well as payments of gross proceeds of dispositions of the Offered Securities, to a "foreign financial institution" (which is broadly defined for this purpose and in general includes investment vehicles) and certain other non-U.S. entities unless various U.S. information reporting and due diligence requirements (generally relating to ownership by United States persons of interests in or accounts with those entities) have been satisfied or an exemption applies. However, the IRS has issued proposed Treasury regulations that eliminate FATCA withholding on payments of gross proceeds (but not on payments of dividends). Pursuant to the preamble to the proposed Treasury regulations, any applicable withholding agent may (but is not required to) rely on this proposed change to FATCA withholding until final Treasury regulations are issued or the proposed Treasury regulations are withdrawn. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. If FATCA withholding is imposed, a beneficial owner that is not a foreign financial institution generally may obtain a refund of any amounts withheld by filing a U.S. federal income tax return (which may entail significant administrative burden). Non-U.S. Holders should consult their tax advisors regarding the effects of FATCA on their investments in the Offered Securities.

Calyxt will not pay any additional amounts to Non-U.S. Holders with respect to any amounts withheld, including pursuant to FATCA.

THE PRECEDING DISCUSSION OF U.S. FEDERAL TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY. IT IS NOT TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL, STATE AND LOCAL AND NON-U.S. TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF THE OFFERED SECURITIES, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

LEGAL MATTERS

Jones Day, New York, New York, has passed upon the validity of the common stock offered hereby.

EXPERTS

The financial statements of Calyxt, Inc. appearing in Calyxt's Annual Report (Form 10-K) for the year ended December 31, 2021 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the report of Ernst & Young LLP pertaining to such financial statements to the extent covered by consents filed with the SEC given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

Calyxt is subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, is required to file periodic reports, proxy statements and other information with the SEC. You can read Calyxt's SEC filings, including the registration statement, over the internet at the SEC's website at www.sec.gov.

Calyxt makes available free of charge, on or through the investor relations section of Calyxt's website, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC. Calyxt will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all of the information that has been incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You may obtain copies of this prospectus and the documents incorporated by reference without charge by writing to Calyxt's investor relations team at 2800 Mount Ridge Road, Roseville, Minnesota 55113, by telephone at (651)-683-2807 or on Calyxt's website at www.calyxt.com. Information contained on our website is not incorporated into this prospectus and you should not consider information contained on our website to be part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows Calyxt to incorporate by reference much of the information the Company files with them. This allows Calyxt to disclose important information to you by referring those publicly filed documents. The information that Calyxt incorporates by reference in this prospectus is considered to be part of this prospectus. Because Calyxt is incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that Calyxt incorporates by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 001-38161) and any future filings the Company makes with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under the registration statement is terminated or completed:

- Annual Report on [Form 10-K](#) for the year ended December 31, 2021 (including the information in Part III incorporated therein by reference from Calyxt's Definitive Proxy Statement on Schedule 14A);
- Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2022;
- Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on [February 18, 2022](#) (solely with respect to Item 8.01), [February 23, 2022](#), [March 28, 2021](#), [May 20, 2022](#) and [June 2, 2022](#); and
- the description of Calyxt's common stock contained in the Registration Statement on [Form 8-A](#) filed on July 20, 2017, including any amendment or report filed for the purpose of updating such description.

Calyxt also incorporates by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including those made after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of such registration statement, until Calyxt files a post-effective amendment that indicates the termination of the offering of the shares of Calyxt's common stock made by this prospectus and will become a part of this prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document Calyxt previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.



7,760,000 Shares of Common Stock

PROSPECTUS

, 2022

PART II. INFORMATION NOT REQUIRED IN PROSPECTUS**Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the expenses payable by Calyxt, Inc., a Delaware corporation (the “Registrant”), in connection with the offering of securities described in this registration statement, other than underwriting discounts and commissions. All amounts shown are estimates, except for the Securities and Exchange Commission (the “SEC”) registration fee. The Registrant will bear all expenses shown below.

SEC registration fee	\$ 1,014.29
Accounting fees and expenses	*
Legal fees and expenses	*
Printing expenses	*
Transfer agent expenses	*
Other	*
Total	*

* These fees are calculated based on the securities offered and the number of issuances and, accordingly, cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Section 145 of the DGCL grants each Delaware corporation the power to indemnify any person who is or was a director, officer, employee or agent of a corporation, against expenses, including attorneys’ fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, by reason of serving or having served in any such capacity, if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. A Delaware corporation may similarly indemnify any such person in actions by or in the right of the corporation if he or she acted in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification may be made in respect of any claim, issue or matter as to which the person shall have been adjudged to be liable to the corporation unless and only to the extent that the Delaware Court of Chancery or the court in which the action was brought determines that, despite adjudication of liability, but in view of all of the circumstances of the case, the person is fairly and reasonably entitled to indemnity for expenses which the Delaware Court of Chancery or other court shall deem proper.

Section 102(b)(7) of the DGCL enables a corporation in its certificate of incorporation, or an amendment thereto, to eliminate or limit the personal liability of a director to the corporation or its stockholders for monetary damages for violations of the director’s fiduciary duty as a director, except (i) for any breach of the director’s duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the DGCL (providing for director liability with respect to unlawful payment of dividends or unlawful stock purchases or redemptions) or (iv) for any transaction from which a director derived an improper personal benefit.

The Registrant’s Certificate of Incorporation indemnifies its directors and principal officers to the fullest extent permitted by Delaware law and its Certificate of Incorporation also allows its Board of Directors to indemnify other employees. This indemnification extends to the payment of judgments in actions against officers and directors and to reimbursement of amounts paid in settlement of such claims or actions and may apply to judgments in favor of the corporation or amounts paid in settlement to the corporation. This indemnification also extends to the payment of attorneys’ fees and expenses of officers and directors in suits against them where the

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officer or director acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the Registrant's best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. This right of indemnification is not exclusive of any right to which the officer or director may be entitled as a matter of law.

The Registrant's directors and officers are insured pursuant to a "directors and officers" insurance policy, which provides protection against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for losses incurred by it in response to securities claims involving directors and officers. The policy contains various customary exclusions for policies of this type.

In addition, the Registrant's board of directors has adopted a policy to enter into an indemnification agreement with each of its directors and officers, which provide for certain advancement and indemnification rights. Each indemnification agreement, provides, subject to certain exceptions, to indemnify and hold harmless the director or officer to the fullest extent permitted by Delaware law.

With respect to any indemnification available to directors affiliated with Collectis, the Registrant has agreed (i) that it is the indemnitor of first resort with respect to any amounts incurred or sustained in connection with such person's role as a director of the Registrant, (ii) that it will be responsible for, and required to advance, the full amount of such amounts without regard to any rights such person may have, or be pursuing, against Collectis, and (iii) to irrevocably waive, relinquish and release Collectis from any and all claims for contribution, subrogation or any other recovery in respect of such amounts.

The indemnification rights set forth above are not exclusive of any other right which an indemnified person may have or hereafter acquire under any statute, provision of the Registrant's Certificate of Incorporation, By-laws, agreement, vote of stockholders or disinterested directors or otherwise.

Item 16. Exhibits.

The exhibit index immediately preceding the signature page hereto is incorporated herein by reference.

Item 17. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished

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to the SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (15 U.S.C. 78m or 78o(d)), that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus forms a part, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is a part of this registration statement will, as to a purchaser with a time of contract sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was a part of this registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the Registrant under the Securities Act to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;

(iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange

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Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted against the Registrant by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(d) The undersigned Registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of section 310 of the Trust Indenture Act of 1939 (the "Act") in accordance with the rules and regulations prescribed by the SEC under section 305(b)(2) of the Act.

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K filed on March 14, 2018)
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q filed on May 7, 2018)
4.1	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K filed on March 5, 2020)
4.2	Form of Warrant (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on February 23, 2022)
5.1	Opinion of Jones Day
23.1	Consent of Ernst & Young LLP
23.2	Consent of Jones Day (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page hereto)
107	Filing Fee Table

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Roseville, in the State of Minnesota, on July 22, 2022.

CALYXT, INC.

By: /s/ Michael A. Carr

Name: Michael A. Carr

Title: President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael A. Carr, William F. Koschak and Debra Frimerman (with full power to each of them to act alone) his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign on his or her behalf individually and in each capacity stated below any and all amendments (including post-effective amendments) to this registration statement (including and related registration statement filed pursuant to Rule 462(b) of the Securities Act), and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents and either of them, or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-3 and power of attorney have been signed by the following persons in the capacities indicated on July 22, 2022.

<u>Signature</u>	<u>Title</u>
<u>/s/ Michael A. Carr</u> Michael A. Carr	President, Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ William F. Koschak</u> William F. Koschak	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Yves Ribeill</u> Yves Ribeill	Board Chair and Director
<u>/s/ Laurent Arthaud</u> Laurent Arthaud	Director
<u>/s/ Phillippe Dumont</u> Phillippe Dumont	Director
<u>/s/ Jonathan Fassberg</u> Jonathan Fassberg	Director

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<u>Signature</u>	<u>Title</u>
<hr/> <i>/s/ Anna Ewa Kozicz-Stankiewicz</i> Anna Ewa Kozicz-Stankiewicz	Director
<hr/> <i>/s/ Kimberly Nelson</i> Kimberly Nelson	Director
<hr/> <i>/s/ Christopher J. Neugent</i> Christopher J. Neugent	Director

JONES DAY

July 22, 2022

Calyxt, Inc.
2800 Mount Ridge Road
Roseville, MN 55113

Re: Registration Statement on Form S-3 Filed by Calyxt, Inc.

Ladies and Gentlemen:

We have acted as counsel for Calyxt, Inc., a Delaware corporation (the “*Company*”), in connection with the authorization of the possible issuance and sale from time to time, on a delayed basis, by the Company of up to 7,760,000 shares (the “*Shares*”) of the Company’s common stock, par value \$0.0001 per share (the “*Common Stock*”), issuable upon exercise of outstanding warrants (the “*Warrants*”) to purchase the Shares, as contemplated by the Company’s Registration Statement on Form S-3 to which this opinion is filed as an exhibit (as the same may be amended from time to time, the “*Registration Statement*”). The Common Stock may be offered and sold from time to time pursuant to Rule 415 under the Securities Act of 1933 (the “*Securities Act*”).

In connection with the opinion expressed herein, we have examined such documents, records and matters of law as we have deemed relevant or necessary for purposes of such opinion. Based on the foregoing, and subject to the further assumptions, qualifications and limitations set forth herein, we are of the opinion that the Shares, when issued upon exercise of the Warrants pursuant to the terms of the Warrants against payment of the exercise price therefor as provided in the Warrants, will be validly issued, fully paid and non-assessable.

In rendering the foregoing opinion, we have assumed that (i) the Registration Statement, and any amendments thereto, will have become effective (and will remain effective at the time of issuance of any Shares thereunder), (ii) the resolutions of the Board of Directors authorizing the Company to issue, offer and sell the Shares will be in full force and effect at all times at which the Shares are offered or sold by the Company and (iii) the Shares will be issued in compliance with applicable federal and state securities laws.

As to facts material to the opinion and assumptions expressed herein, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others. The opinion expressed herein is limited to the General Corporation Law of the State of Delaware, as currently in effect, and we express no opinion as to the effect of the laws of any other jurisdiction.

Calyxt, Inc
July 22, 2022
Page 2

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to Jones Day under the caption “Legal Matters” in the prospectus constituting a part of such Registration Statement. In giving such consent, we do not hereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Jones Day

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in this Registration Statement (Form S-3) and related Prospectus of Calyxt, Inc. for the registration of common stock underlying outstanding warrants and to the incorporation by reference therein of our report dated March 3, 2022, with respect to the consolidated financial statements of Calyxt, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2021, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP
Minneapolis, Minnesota
July 22, 2022

Calculation of Filing Fee Tables

Form S-3
(Form Type)

Calxyt, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to Be Paid	Equity	Common stock, par value \$0.0001 per share	457(a)	7,760,000 ⁽²⁾	\$1.41	\$10,941,600 ⁽²⁾	\$92.70 per \$1,000,000	\$1,014.29 ⁽²⁾				
Fees Previously Paid	—	—	—	—	—	—	—	—	—	—	—	—
Carry Forward Securities												
Carry Forward Securities	—	—	—	—	—	—	—	—	—	—	—	—
	Total Offering Amounts						\$10,941,600	\$1,014.29				
	Total Fees Previously Paid							—				
	Total Fee Offsets							—				
	Net Fees Due							\$1,014.29				

(1) Pursuant to Rule 416 under the Securities Act of 1933 (the “Securities Act”), the shares of common stock being registered hereunder include such indeterminate number of shares as may be issuable as a result of stock splits, stock dividends or similar transactions.

(2) Consists of shares of common stock issuable upon the exercise of outstanding warrants with an exercise price of \$1.41 per share. Such warrants were issued and sold under Registration Statement No. 333-233231, which was declared effective on September 27, 2019.