| OMB APPROVAL | | | | |
|--------------------------|-------|-------------|--|--|
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| NUMBER | | 001-36042 | | |

CUSIP NUMBER 46122T102

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 12b-25

NOTIFICATION OF LATE FILING

| (Check one) | | | |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| | For Period Ended: June 30, 2018 | | |
| | □ Transition Report on Form 10-K □ Transition Report on Form 20-F □ Transition Report on Form 11-K □ Transition Report on Form 10-Q □ Transition Report on Form N-SAR | | |
| | For the Transition Period Ended: | | |

Read Instructions (on back page) Before Preparing Form. Please Print or Type.

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

PART I — REGISTRANT INFORMATION

INTREXON CORPORATION

Full Name of Registrant

N/A

Former Name if Applicable

20374 Seneca Meadows Parkway

Address of Principal Executive Office (Street and Number)

Germantown, Maryland 20876

City, State and Zip Code

PART II — RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-CEN or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

X

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-CEN, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

Intrexon Corporation (the "Company") will not be able to file its Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (the "Second Quarter 10-Q") within the prescribed time period without unreasonable effort and expense. As previously announced, the Audit Committee of the Board of Directors of the Company concluded on August 9, 2018 that a restatement of the unaudited interim consolidated financial statements included in the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 was required and those financial statements should not be relied upon because of errors in the Company's accounting related to the initial adoption, and resultant impacts, of Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers*. As a result of these events, the Company experienced a delay in the completion of its financial statements, Management's Discussion and Analysis of Financial Condition and Results of Operations and other related components of the Second Quarter 10-Q. The Company currently expects to file the Second Quarter 10-Q within the five-day extension period provided under Rule 12b-25 of the Securities Exchange Act of 1934, as amended.

| PART IV — OTHER INFORMATION | | | | | | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------|--|--|--|
| (1) | Name and telephone number of person to contact in regard to this notification | | | | | |
| | Rick L. Sterling (Name) | 301 (Area Code) | 556-9900 (Telephone Number) | | | |
| (2) | Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed If answer is no, identify report(s). ⊠ Yes □ No | | | | | |
| (3) | Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? \square Yes \boxtimes No | | | | | |
| | If so, attach an explanation of the anticipated change, | both narratively and quantitatively, and, i | f appropriate, state the reasons why a reasonable | | | |

estimate of the results cannot be made.

Intrexon Corporation (Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date August 10, 2018

By /s/ Rick L. Sterling

Name: Rick L. Sterling Title: Chief Financial Officer