

‘Florida Elyana’

U.S. Plant Patent Pending

Strawberry Cultivar

A strawberry cultivar with large, flavorful fruit from December through March in research plots and in a high tunnel trial on a commercial farm in west-central Florida. It has also shown promise in high and low tunnel trials on commercial farms in Spain, Morocco, and Egypt. This variety has potential in winter and spring production areas where strawberries are grown in tunnels or greenhouses. Developed by the strawberry breeding program at University of Florida’s Institute of Food and Agricultural Sciences (IFAS) and offered for exclusive license by the Florida Foundation Seed Producers, Inc.



Florida Foundation Seed Producers, Inc. (FFSP) invites your company to submit a proposal for exclusive license of this new, strawberry cultivar by following the instructions contained in this packet. The deadline for FFSP receipt of all required materials is Monday, August 18, 2008 at 5pm Eastern Standard Time. For more information, please contact FFSP at beutt@ffsp.net.

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'Florida Elyana'

Cultivar Description

'Florida Elyana' is a short day strawberry cultivar. It is smaller and a lower stature plant than 'Strawberry Festival'. This habit, along with fruit that are attached to long pedicels, makes the plant easy to harvest (Fig. 1). 'Florida Elyana' produces larger fruit than 'Strawberry Festival'. It has a mean fruit weight in west central Florida of between 24 and 27g, compared to between 17 and 21g for 'Strawberry Festival' (Tables 1 & 2). Fruit are mostly medium conic to wedge shaped, with the wedge shaped fruit often showing a longitudinal dimple on the broad sides of the fruit (Fig. 2). The fruit are quite susceptible to surface cracking, which is due to exposure to free moisture. Thus, this cultivar is not recommended for open field culture where there is a high likelihood of multiple rain or dew events during the fruiting season. External fruit color is a bright red, and internal color is carmine pink. The calyx is generally medium in size and attractive. Fruit texture is firm (Table 3), and the flavor is usually sweet with a pleasant aroma. The soluble solid content of 'Florida Elyana' fruit is as high as or higher than that of 'Strawberry Festival' (Table 4). Its soluble solid content (SSC) and titratable acidity (TA) ratio is consistently higher than that of 'Strawberry Festival'.

PERFORMANCE

'Florida Elyana' is as productive as 'Strawberry Festival' in December and January, but not as productive later in the season (Tables 1 & 2). This could be due to the fact that 'Florida Elyana' plants stay relatively small throughout the season, whereas 'Strawberry Festival' plants are more vigorous in terms of producing new branch crowns. However, in a recent high tunnel trial, total season yield for 'Florida Elyana' was not significantly different than for 'Strawberry Festival'. Productivity of 'Florida Elyana' on a per unit basis may be increased by planting this cultivar at a higher than standard density.

DISEASE RESISTANCE

'Florida Elyana' is moderately resistant to the two most serious disease problems on strawberry in Florida: Botrytis fruit rot (caused by *Botrytis cinerea*) and anthracnose fruit rot (caused by *Colletotrichum acutatum*). In an unsprayed trial during the 2007-08 season, only 3% of the 'Florida Elyana' fruit harvested from mid February to mid March showed symptoms of anthracnose fruit rot, compared to 53% for 'Treasure', the susceptible control. 'Florida Elyana' also appears to have resistance to *Colletotrichum* and *Phytophthora* crown rots.

**Table 1: Performance of Strawberry Cultivars
Dover, Florida
(2004-2005 Season)**

Cultivar	Marketable yield (g/plant)					Fruit wt. ^z (g)
	December	January	February	March	Total	
'Florida Elyana'	76 a ^y	108 a	178 a	353 b	715 b	27.1 a
'Strawberry Festival'	37 b	144 a	155 a	592 a	928 a	20.6 b

^z Mean fruit weight was determined by dividing total marketable fruit yield per plot by total marketable fruit number per plot.

^y Means based on four replications of 10 plants each. Mean separation within columns by Fisher's protected LSD test, $P \leq 0.05$.

**Table 2: Performance of Strawberry Cultivars
Dover, Florida
(2006-2007 Season)**

Cultivar	Marketable yield (g/plant)					Fruit wt. ^z (g)
	December	January	February	March	Total	
'Florida Elyana'	46 a ^y	99 a	159 b	322 b	626 b	24.4 a
'Strawberry Festival'	65 a	94 a	218 a	459 a	836 a	17.3 b

^z Mean fruit weight was determined by dividing total marketable fruit yield per plot by total marketable fruit number per plot.

^y Means based on four replications of 10 plants each. Mean separation within columns by Fisher's protected LSD test, $P \leq 0.05$.

Table 3: Mean Acceptance Scores (9-point hedonic scale) for Appearance, Texture, and Flavor (Evaluated over two harvest seasons)

	Cultivar	Feb. 2006	Mar. 2006	Jan. 2007	Feb. 2007	Mar. 2007
Appearance	'Florida Elyana'	6.6 b ^z	7.5 a	5.9 a	6.4 b	6.0 a
	'Strawberry Festival'	7.8 a	6.8 b	6.2 a	7.2 a	6.3 a
Texture	'Florida Elyana'	7.4 a	7.1 a	6.9 a	6.9 a	6.2 a
	'Strawberry Festival'	7.5 a	6.6 a	6.4 a	6.8 a	6.2 a
Flavor	'Florida Elyana'	7.3 a	7.0 a	6.5 a	6.7 a	6.2 a
	'Strawberry Festival'	7.3 a	6.2 b	5.9 b	6.9 a	5.1 b

^z Mean separation within columns by Fisher's protected LSD test, $P \leq 0.05$.

Table 4: Soluble Solid Content (SSC) and Titratable Acidity (TA) (Evaluated over two harvest seasons)

	Cultivar	Feb. 2006	Mar. 2006	Jan. 2007	Feb. 2007	Mar. 2007
SSC (°Brix)	'Florida Elyana'	10.2 a ^z	8.2 a	7.7 a	9.6 a	7.3 a
	'Strawberry Festival'	7.5 b	7.5 b	6.9 b	9.8 a	6.2 b
TA (%)	'Florida Elyana'	0.82 a	0.58 a	0.78 b	0.71 b	0.69 a
	'Strawberry Festival'	0.75 b	0.63 a	0.91 a	0.87 a	0.73 a

^z Mean separation within columns by Fisher's protected LSD test, $P \leq 0.05$.

'Florida Elyana'

FIGURE 1
Plants of 'Florida Elyana' Strawberry



'Florida Elyana'

FIGURE 2
Fruit of 'Florida Elyana' Strawberry



'Florida Elyana'

Instructions for Submitting a Proposal

If your company is interested in obtaining an exclusive license for the 'Florida Elyana' strawberry cultivar, all you need to do is complete the three steps on this checklist:

_____ Step 1: Carefully read the terms and conditions on the next two pages (pages 8 and 9) of this packet.

_____ Step 2: Complete and sign the Acknowledgment Form on page 10 of this packet, and fax it to Florida Foundation Seed Producers, ATTN: John Beuttenmuller, at 352-392-4965.

_____ Step 3: After we receive the Acknowledgment Form, we will send your company a questionnaire in which you may submit your proposal. Complete the questionnaire and e-mail, fax, or mail it back to Florida Foundation Seed Producers **before Monday, August 18, 2008 at 5pm EST.** Contact information can be found on the questionnaire.

FFSP will objectively evaluate all companies' proposals and FFSP may grant an exclusive license to the company whose proposal best accomplishes FFSP's goals for this cultivar.

REMINDER: All materials must be received before **Monday, August 18, 2008 at 5pm EST**. Late proposals will not be accepted or considered.

Florida Foundation Seed Producers, Inc. (FFSP), a not-for-profit corporation acting on behalf of the Florida Agricultural Experiment Station (FAES), an agricultural research program of the University of Florida (University), hereinafter referred to as FAES offers the following Invitation to Negotiate (ITN).

GENERAL CONDITIONS:

INVITATION TO NEGOTIATE FORM - All proposals should be submitted on this FFSP Invitation to Negotiate Acknowledgment form with one (1) complete original proposal and three (3) complete photocopies in a sealed envelope, with the following information on the outside of the envelope: ITN number, date and time of ITN opening, and Company name, in order to be considered in the award. All I.T.N. response sheets and this form must be executed and submitted in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE I.T.N. RESPONSE PER ENVELOPE.)

1. **EXECUTION OF I.T.N.:** I.T.N. must contain a manual signature of authorized representative in the space provided above. I.T.N. must be typed or printed in ink. Use of erasable ink is not permitted. All corrections to prices made by Proposer must be initialed. All I.T.N. proposals are subject to the conditions specified herein. Those, which do not comply with these conditions, are subject to rejection.

2. **NO I.T.N. SUBMITTED:** If not submitting an I.T.N., respond by returning only this I.T.N. acknowledgment form, marking it "NO I.T.N. RESPONSE", and explain the reason in the space provided above. Failure to respond 3 times in succession without justification may be cause for removal of your company's name from the I.T.N. mailing list. **NOTE:** To qualify as a respondent, Proposer must submit a "NO I.T.N. RESPONSE", and it must be received no later than the stated I.T.N. opening date and hour.

3. **ITN DELIVERY** - If this ITN will be mailed through the U. S. Postal Service as regular mail, address the proposal to the PO Box as shown on the Invitation to Negotiate Acknowledgment Form.; or if the ITN proposal will be delivered by a service other than the U. S. Postal Service regular mail, i.e., Federal Express, Airborne, United Parcel Service, Courier, U. S. Postal Express Mail, etc., address the proposal to the Building and room number as shown on the ITN Acknowledgment form.

4. **I.T.N. OPENING:** Shall be on the date, location and the time specified on the I.T.N. acknowledgement form. It is the Proposer's responsibility to assure that the I.T.N. response is delivered at the proper time and place of the I.T.N. opening. I.T.N. responses, which for any reason are not so delivered, will not be considered. **NOTE:** I.T.N. Notice of an unspecified Award may be posted electronically at (e.g. <http://FFSP.org>) listed as I.T.N.

5. **PROPOSAL WITHDRAWAL** - A Proposer may withdraw a submitted proposal at any time up to the deadline for submitting proposals. To withdraw a proposal, the Proposer must submit a written request, signed by an authorized representative, to the ITN contact before the deadline for submitting proposals. After withdrawing a previously submitted proposal, the Proposer may submit another proposal at any time up to the deadline for submitting proposals.

6. **INQUIRIES** - All changes, if necessary, shall be made by written addendum to the ITN. Any explanation desired by Vendors must be requested of the FFSP in writing, and if an explanation is necessary, a reply shall be made in the form of an addendum, a copy of which will be forwarded to each Vendor who has received a set of the ITN documents from the FFSP. The FFSP will not give verbal answers to inquiries regarding the specifications, or verbal instructions prior to or after the award of this ITN. A verbal statement regarding same by any person shall be non-binding. The FFSP is not liable for any costs or actions resulting from the Proposer accepting verbal direction. Vendors obtaining ITN documents from any other source must notify the FFSP of their name, address, telephone, and facsimile numbers in order to receive any addenda. Direct all inquiries to the Germplasm Manager of FFSP.

7. **ERRORS** - The FFSP is not liable for any errors or misinterpretations made by the Proposer in responding to this Invitation to Negotiate.

8. **AMENDMENT AND CLARIFICATION** - FFSP reserves the unilateral right to amend this ITN in writing at any time. FFSP reserves the right to cancel or reissue the ITN at its sole discretion. Proposers will respond to the final written ITN and any exhibits, attachments, and amendments.

9. **ITN INTERPRETATION** - Interpretation of the wording of the ITN document submitted by the Proposer will be the responsibility of FFSP and that interpretation will be final and binding.

10. **PROPOSAL REJECTION:** FFSP shall have the right to reject any or all ITN proposals and in particular to reject a proposal not accompanied by data required by the ITN or in any way incomplete or

irregular, including omission of pricing. Conditional ITN proposals will not be accepted.

11. **PRICES, TERMS:** Proposers are expected to examine the project scope, specifications, schedule, proposed terms and all instructions pertaining to the ITN. Failure to do so will be at Proposers' risk. Prices proposed will govern in the award, however, Fees, Royalties and Price are not the only considerations in selection for the award.

12. **CONFLICT OF INTEREST:** Proposers must disclose with their proposal any actual or potential conflict of interest. All Proposers must disclose with their I.T.N. the name of any officer, director, or agent who is also an employee of FFSP or the University of Florida or any State Employee. Further, all Proposers must disclose the name of any State employee who owns, directly or indirectly, an interest of five percent (5%) or more in the Proposer's firm or any of its branches.

13. **PERFORMANCE INVESTIGATIONS** - As part of the proposal evaluation process, the FFSP may make inquiries and investigations, including verbal or written references from vendor's customers, to determine the ability of the vendor to offer service.

14. **INDEPENDENT CONTRACTOR** - Nothing herein is intended or shall be construed as in any way creating or establishing the relationship of co-partners between the parties or in any way making the firm an agent or representative of FFSP for any purposes in any manner whatsoever. Firm is, and shall remain, an independent contractor with respect to all services performed under any License awarded as a result of this ITN.

15. **SELECTION:** As the best interest of FFSP acting on behalf of the Florida Agricultural Experiment Station may require, the right is reserved to make selections by individual item, group of items, all or none, or a combination thereof; to reject any and all I.T.N. proposals or waive any minor irregularity or technicality in I.T.N. proposals received. Proposers are cautioned to make no assumptions of acceptance, until receiving written notice and that Fees, Royalties and Price are not the only consideration in the award.

16. **AWARD:** Award shall be made to the responsive Proposer whose proposal is determined to be the most advantageous to FFSP. Price, although a consideration, will not be the sole determining factor. The FFSP is under no obligation to award a contract as a result of this ITN.

17. **CANCELLATION** - The FFSP by written notice may terminate this I.T.N. without penalty or cause, in whole or in part, when such action is deemed by FFSP to be in the best interest of the FFSP.

18. **INTERPRETATIONS/DISPUTES:** Any questions concerning conditions or negotiation considerations shall be directed in writing to the Germplasm Manager. Inquiries must reference the date of I.T.N. opening and the I.T.N. number. No interpretations shall be considered binding unless provided in writing by the FFSP in response to requests in full compliance with this provision.

19. **LEGAL REQUIREMENTS:** This ITN and any contract resulting from this ITN, and any disputes thereunder, shall be construed exclusively in accordance with the laws of the State of Florida and enforced in the courts of the State of Florida. FFSP and Proposer hereby agree that venue shall lie exclusively in Alachua County, Florida. Applicable provision of all federal, state, county and local laws, and of all ordinances, rules and regulations shall govern development, submittal and evaluation of all proposals received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting an I.T.N. response hereto and the FFSP, by and through its officers, employees and authorized representatives, or any other person, natural or otherwise: and lack of knowledge by any proposer shall not constitute a cognizable defense against the legal effect thereof.

20. **ADVERTISING:** In submitting an I.T.N, the Proposer agrees not to use the results therefrom as a part of any commercial advertising.

21. **ASSIGNMENT:** Any contract issued pursuant to this Invitation to Negotiate and the monies, which may become due hereunder, are not assignable except with the prior written approval of FFSP.

22. **LIABILITY and INDEMNITY** - The Proposer shall indemnify and hold FFSP, the University of Florida Board of Trustees, the Florida Board of Governors, and their respective employees, directors, officers, and agents harmless from all costs, expenses, claims, damages, penalties and losses (including without limitation reasonable attorneys' fees and experts' fees) arising out of, relating to or resulting from any contract awarded as a result of this ITN and from the Proposer or third persons planting or use of the FFSP materials.

23. **FACILITIES:** The FFSP reserves the right to inspect the Proposer's facilities at any time with prior notice.

24. **TERMINATION:** Upon termination of the project, FFSP shall give notice with instructions for return of sound samples, which include shipping authorization and name of carrier. Upon receiving a written request from FFSP, Proposer agrees to return to FAES sufficient sound samples as instructed. If no instructions are received from FFSP, the Proposer shall give 15 days notice to destroy all commodities to the FFSP Germplasm Property Manager. After 15 days, the entire supply of commodities shall be destroyed by the Proposer, without exception for other options or hold backs.

25. **RESERVATION OF RIGHTS - UF or FFSP** shall retain sole rights, titles and ownership of the supplied Intellectual Property (IP), including all plant material and associated information provided in performance of the project and all current and future plant patents, plant variety protection (PVP), copyrights and trademarks. No one is permitted to file for IP protection, except UF, FFSP or their designees.. FFSP is enabled by UF/FAES to file for Intellectual Property protection and to contract out all forms of IP to commercial entities. Breeding or selection or modifications to the plant materials and IP supplied by employees of UF are prohibited.

26. **CONFLICT BETWEEN DOCUMENTS:** If any terms and conditions contained within the documents that are a part of this I.T.N. or resulting contract that are in conflict with any other terms and conditions contained therein, then the various documents comprising this I.T.N. or resulting License, as applicable, shall govern in the following order of precedence: amendment, contract and addendum(s), addenda to invitation to negotiation, special conditions, general conditions, invitation to negotiate.

27. **EXPENSE –** All proposals submitted in response to the ITN must be submitted at the sole expense of the Proposer, whether or not any agreement is signed as a result of this Invitation to Negotiate. Proposers will pay all costs associated with the

preparation of proposals and necessary visits to campus and other required site visits.

28. **NO WARRANTIES.** FFSP MAKES NO REPRESENTATIONS OR WARRANTIES WHATSOEVER WITH RESPECT TO THE MATERIALS, INCLUDING, WITHOUT LIMITATION, (I) THAT THE USE OF THE MATERIALS DOES NOT OR WILL NOT INFRINGE ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHTS OF ANY THIRD PARTY, OR (II) THAT THE USE OF THE MATERIALS IS SAFE AND WITHOUT HAZARD. FFSP IS UNDER NO OBLIGATION TO OBTAIN OR PROVIDE LICENSES THAT MAY BE REQUIRED FOR THE USE OF THE MATERIALS BY PROPOSER. IN ADDITION, PROPOSER SHALL ASSUME ALL RISKS RELATING TO, RESULTING FROM OR ARISING OUT OF THE USE OF THE MATERIALS.

SPECIAL CONDITIONS:

29. **USE OF TERMS -** The terms proposer, cooperater, firm, vendor, company, and contractor are used synonymously in this ITN unless otherwise indicated.

30. **MISCELLANEOUS –** FFSP encourages free competition for the award. Any persons who may have a direct or indirect economic or business interest with any Proposer responding to the solicitation, is obligated to notify the Germ Plasm Manager (GPM) prior to accessing the ITN package contents and information and may be denied participation and access to the ITN. Any contract awarded as a result of this ITN shall be construed exclusively under Florida law. The parties agree that venue shall lie exclusively in Alachua County, Florida.

31. **CONTRACT –** This ITN, the written proposal submitted, and modifications to terms as negotiated and agreed to by the parties shall be incorporated into the final contract for consideration.

If your company is interested in pursuing an exclusive license for ‘Florida Elyana’ strawberry, please complete and sign this Acknowledgement Form agreeing to the above terms and conditions of the ITN process and fax it back to John Beuttenmuller, Florida Foundation Seed Producers, at (352) 392-4965. We will then send your company a questionnaire in which you submit your proposal.

SUBMIT I.T.N. TO:
 FLORIDA FOUNDATION SEED PRODUCERS, INC.
 ATTN: John Beuttenmuller
 1022 McCarty Hall D
 PO Box 110200
 GAINESVILLE, FL 32611 0200
 Phone: (352) 392-9446 Fax: (352) 392-4965



INVITATION TO NEGOTIATE

Acknowledgment Form

I.T.N. PROPOSAL IS DUE: Monday, August 18, 2008 at 5pm EST Proposal may not be withdrawn within <u>45</u> days after such date and time.		I.T.N. PROPOSAL NO. ITN 08-08
FFSP ANNOUNCED DATE: July 7, 2008	AGENT John Beuttenmuller	I.T.N. PROPOSAL TITLE: ‘Florida Elyana’ – Strawberry Cultivar
PROPOSER'S NAME		
PROPOSER'S MAILING ADDRESS (Phys)		
CITY - STATE - ZIP CODE		
AREA CODE	TELEPHONE NO.	E-Mail:
	TOLL FREE NO.	Website:
	FAX NO.	

Is it acceptable to send your ITN questionnaire via e-mail? Yes No

If no, what method should we use to send it? _____

I certify that this I.T.N. Proposal is made without prior understanding, agreement, or connection with any corporation, firm or person submitting an I.T.N. Proposal for the same materials and is in all respects fair and without collusion or fraud. I agree to an I.T.N. proposal by all conditions of this I.T.N. Proposal and certify that I am authorized to sign this I.T.N. Proposal for the Proposer.

 AUTHORIZED SIGNATURE (Dated)

 AUTHORIZED SIGNATURE (TYPED),
 TITLE