**I. PREAMBLE**

**Definition**

The Translational Plant Sciences (TPS) program is both a graduate student recruitment program and a group of laboratories with broad research topics revolving around attaining of basic knowledge in the plant sciences and translation of this knowledge to improve crop production. The TPS program is funded by the Virginia Tech Graduate School (Interdisciplinary Graduate Education Program - IGEP program), the Fralin Life Science Institute, and individual departments.

**Mission**

The mission of the TPS program is to recruit students and foster their education in the field of plant sciences to prepare them to interdisciplinary positions related to plant research, biotechnology, and agriculture.

**TPS EC and GSO**

Two bodies ensure the functioning of TPS: the TPS Executive Committee (TPS EC), composed of faculty, and the TPS Graduate Student Organization (TPS GSO) composed of graduate students. Thorough communication and interaction between the TPS EC and the TPS GSO is expected to ensure smooth communication between students and faculty and to address the needs of both groups.

**II. BENEFITS AND EXPECTATIONS**

**A. Definition of TPS Laboratories and TPS members**

A TPS laboratory is defined as a laboratory whose Principal Investigator (PI) is serving the TPS community (see below II.C: “expectations”). A list of participating laboratories can be found on the TPS web page.

A TPS member is defined as an individual member of a TPS laboratory (undergraduate, graduate, postdoctoral associate (postdoc), faculty, or staff). Note that a student recruited through the TPS program loses TPS member status and associated benefits after joining a non-TPS lab (see special cases in II.D below).

A TPS faculty is defined as a faculty member leading a TPS lab.

A TPS graduate student is defined as a graduate student from a TPS lab.

The TPS community is defined as the group of TPS members.

The TPS extended community is defined as the group of TPS members and individuals in non-TPS laboratories still actively participating in TPS activities and duties (see also II.D.). The TPS extended community corresponds loosely to all the people who signed up to the TPS google group.

**B. Benefits of being a TPS member**

a. All TPS members
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- Be part of an interactive, vibrant, and highly collaborative community of faculty and students that share common interests in plant biology and agriculture.
- Participate in the annual TPS symposium
- Have access to the MAGYC computer cluster server
- Have a voice in optimizing TPS directions and activities

b. **Students and postdocs**
- Participate in the Annual Grant Competition (students only can apply as PI, but post-docs can participate as co-PI)
- Participate in and attend the TPS-Discussion Group (DG) and the seminars organized by the TPS GSO
- Participate in the annual TPS Symposium
- Participate in professional development activities and education
- Mentor junior TPS students and postdocs
- Participate in TPS social events
- Serve on grant and admission committees to gain experience in such activities

c. **Faculty**
- Participate in rotating leadership duties
- Recruit students from the TPS program
- Ability to vote on TPS related matters

C. **Expectations of TPS members**

a. **Faculty**
- Serve on TPS committees – grant competition, admission, ...
- Participate in TPS administrative duties (see III.A.)
- Participate in the TPS recruitment weekend
- Host rotation students
- Attend the Symposium
- Attend most TPS-DG and rotation seminars and social events (recruitment weekend, retreats)
- Submit annual report of accomplishments and service to the TPS in the required format in a timely and thorough manner (April every year)

b. **Post-docs**
- Serve on the grant competition committee
- Attend the TPS symposium
- Attend TPS-DG and rotation seminars and social events (recruitment weekend, retreats)

c. **Students**
- Serve on the grant competition committee
- Serve as member of the GSO
- Participate to the TPS Symposium
- Timely annual reporting of service to the TPS in the required format (service and awards)
- Participate to and attend TPS-DG and rotation seminars and social events (recruitment weekend, retreats)

D. **Ability of students from non-TPS labs to claim TPS benefits**
In some cases, a student may be part of a non-TPS lab, but wants to be a TPS member. This situation is acceptable, provided that the student dedicates time to come to the TPS seminars, participates in the TPS GSO and fulfills required TPS duties (see above), with an activity level equivalent to a 4 or higher in the activity criterion (see IV-E). Requests to be considered a TPS member can be made to any member of the TPS-EC or the TPS-GSO.

E. Procedure to become a TPS lab / Removal of the TPS lab status
A faculty member interested in joining the TPS program must send a one-page statement of interest and a CV to the TPS Director. The statement should highlight the alignment of the faculty member’s research with the TPS mission. The faculty member should acknowledge in the statement that she/he will comply with the requirements of being part of the TPS program and will submit an annual report of the service to the TPS. The TPS Director will forward the application to the TPS-EC and a three-quarter majority is required to approve affiliation.

Affiliation will be reviewed by the TPS-EC at two-year intervals. The TPS-EC can provide a recommendation to the TPS Director regarding revocation of TPS status or a one-year probationary period. The final action for removal of TPS status will be performed by the TPS Director.

III. ORGANIZATION AND LEADERSHIP
A. General Meetings
In order to ensure communication of new developments, expectations, and provide direction for the TPS program, at least two general meetings of the full membership will be held annually (one each semester).

- Fall Meeting (around October). Goals of the fall meeting are to provide an update to members as a general “state of the program” with a recap of the past year’s events and planning for the year ahead.
- Spring meeting (around February). Goals of the spring meeting are to nominate members to fill positions for the following year (described below) and to organize the summer retreat.
- Summer retreat (around May-June). Goals are to review the success, outcomes and issues of the past year with Faculty, Staff, Post-docs, and Student, and define any desired changes and improvements for the next year.

The TPS Director sets the agenda and chairs the meetings to ensure productive discussion.

B. Voting
a. Voting procedures

- A quorum shall consist of at least half of the eligible voters
- Decisions are generally decided by secret online ballots
- The results of secret ballots will not be announced, only whether the motion passed or failed
- A two-thirds majority can be requested by any faculty member for any decision
- Motions should be presented to the TPS-EC at least one week before the general meetings. After debate, the motion will be brought to a vote.

b. Actions requiring a vote

- Any proposed changes to the TPS By-laws (two-thirds majority)
- Motions impacting the TPS organization or status (two-thirds majority)
- Changes or modification of governance of TPS (simple majority)
- Change in the TPS mission (simple majority)
c. Voting Rights are extended to the following
   - TPS faculty; each may cast one vote
   - The TPS-GSO; each of the 5 members casts one vote representing the graduate students

C. Faculty Leadership positions
To be considered a TPS member, participation in program leadership is expected on a rotating basis. The leadership consists of a Director, Executive Committee (5 members) and TPS IGEP Director.

Positions are filled on a volunteer basis. If more than one nominee has volunteered for a position, an election will be conducted by secret online poll.

Duties and terms of the positions include:

- **TPS Director** (3-year term).
  - organize the date, location and agenda of the general meetings and retreat
  - coordinate with the members of the TPS-EC to ensure expectations are being met and communicated to the TPS membership
  - invite laboratories to submit an application to join the TPS
  - ensure that the documents and materials generated by the members of the TPS-EC are archived and organized.
  - set the agenda and serve as chair of the regular TPS meetings and retreat
  - *Note:* The Director should have previously served on one of the other committees to ensure familiarity with activities and leadership in TPS.

- **Finance Associate Director** (3-year term).
  - review and approve requests for expenditures (recruiting weekend costs, annual grant competition awards, educational student activities, Symposium, TPS social events).
  - *Note:* The Finance Director should have previously served on one of the other committees to ensure familiarity with the activities and leadership in TPS.

- **Recruitment Director** (1-year term which extends to a 1-year term as Rotation Director the following year).
  - organize the fall recruiting weekend in close collaboration with the Finance Director
  - organize and sit as chair of the student recruiting committee, composed of TPS faculty
  - manage recruitment of new students

- **Rotation Director** (1-year term as an extension from previous year as Recruitment Director).
  - provide orientation for first year TPS students
  - organize rotations
  - schedule rotation presentations for students after each rotation (including meeting with students for practice sessions)

- **Organizer(s) of the TPS Symposium** (1-year term).
  - arrange the scientific agenda of the spring Symposium
  - choose the topic or theme for the annual Symposium
  - invite speakers
  - develop the format and marketing for the Symposium
  - work with the finance director to choose a date, reserve the venue, develop award competitions, and arrange for transportation, honorarium and lodging for the invited speakers.

- **Grant Competition Director** (1-year term).
  - organize the TPS grant committee
  - oversee awarding of grants to TPS students
**TPS IGEP Director** (no term limit). The TPS IGEP Director is included in the leadership of TPS to ensure good communication with the Graduate School and to meet requirements of procuring continued IGEP funding.

**Assistant Director of Recruitment and Admissions** (no term limit). The Assistant Director of Recruitment and Admissions is a University Staff member approved by the TPS-EC. Major duties include:
- Create strategic initiatives to develop both regional and national recruitment, admissions, and retention strategies for high quality and diverse applicants that meet program enrollment goals
- Partner with Recruitment Director to organize the recruitment events and admissions reviews
- Provide ongoing assessment of recruitment and admissions strategies to help establish and improve best practices
- Monitor external funding opportunities for eligible admissions candidates and work with Recruitment Director to submit nominations

### D. Student Leadership Positions

The TPS-GSO is elected from TPS graduate students.

The incumbent GSO will run the election during the spring semester. A one-week nomination period will be provided to allow new students to apply for positions. Following the nominations, all TPS graduate students will be allowed to vote for their preferred candidate in each position.

The elections of the new GSO should occur more than one month before the GSO student retreat. The retreat has historically been held in May or June. The incumbent GSO will work with the GSO-elect to organize the retreat. During this period, the incumbent GSO will train and prepare the GSO-elect for their responsibilities.

The GSO will maintain a relationship with the TPS faculty organizers. The entire GSO will attend TPS faculty meetings. The president will compile a yearly report of GSO and TPS activities for a report to IGEP.

The positions are as follows:

- **President** (1-year term).
  - chief executive and organizer of GSO activities
  - primary liaison with the TPS faculty organizers
  - set meetings of the GSO
  - delegate and work with the other GSO members to organize events
  - work with the Organizer(s) of the TPS Symposium to organize that event

- **Treasurer** (1-year term).
  - responsible for finance management of the GSO
  - interact with the TPS Finance Director to acquire monies for TPS-GSO events
  - work with TPS-DG coordinator in order secure funds for those events
  - maintain a spreadsheet documenting TPS GSO expenses
  - work with the Grant Competition Director and sit on the Grant committee.
• **Recruitment Chair** (1-year term).
  - assist in recruitment activities of TPS
  - work with the TPS Recruitment Director to organize the recruiting weekend and other activities for new students
  - find and pair graduate student mentors for incoming TPS students; both rotating and non-rotating
  - assist the TPS faculty responsible for management of the TPS website.

• **TPS-DG Coordinator** (1-year term).
  - organize the TPS-Discussion Group
  - secure a venue, find speakers, and provide food at the monthly TPS-DG
  - maintain a spreadsheet of DG presenters, attendees, and monthly attendance and expenditure
  - work with the TPS Grant Competition Director of the previous year so grant-winning students can present on their winning projects or trips.

• **Historian** (1-year term).
  - document minutes at GSO meetings and activities at TPS events
  - take notes at GSO meetings and upload to the GSO Google Drive
  - take and collect pictures at TPS event and upload them to the GSO Google Drive
  - organize the TPS-GSO Facebook page and be responsible for other GSO activities on social media
  - work with the GSO Recruitment Chair to provide updated pictures to the TPS website.

E. **Standing Committees**

a. **Grant Committee**

Organized yearly by the TPS Grant Competition Director (Section IV B).

b. **Recruitment Committee**

Organized yearly by the Recruitment Director, it is comprised of TPS faculty to review applications and extend admission offer to new TPS graduate students.

Post-docs and PhD candidates are encouraged to participate on the committee as non-voting members.

IV. **GRANT COMPETITION**

A. **Grant Competition:**

The TPS will consider applications on an annual basis to support graduate student research, outreach and professional development opportunities. These applications will be reviewed and funds awarded by a Grant Committee.

B. **The Grant Committee**

The Grant Competition Director will report the activities of the Grant Committee to the Finance Director and the TPS Director.

The Grant Competition Director is responsible for assembling the Grant Committee consisting of graduate students, post-docs and faculty drawn in approximately equal proportions from the TPS community. The TPS-GSO Treasurer will sit on the committee. The size of the committee will be in proportion to the applications submitted in the funding period, at the discretion of the Grant Competition Director. Recent awardees will be preferentially selected for the committee. Students, post-docs and faculty of students...
who have a conflict of interest with grant applicants (i.e. are Pi/Co-Pi, or mentoring a student on a grant on the same term) can sit on the committee, but must recuse themselves from deliberating on the grant with which a conflict of interest exists.

C. Proposal Categories
Categories are set at the discretion of the TPS Grant Competition Director and the Grant Committee and major changes must be approved by the TPS-EC. See guidelines of the TPS Grant call for more details.

D. Eligibility for TPS grants
Any TPS student (see definition in II-A) may submit proposals. This excludes rotation students who do not yet have an advisor. Students who are not members of a TPS laboratory may only submit travel proposals or be part of collaborative grants as Co-Pi, with the grant PI being a member of a TPS laboratory.

E. Activity Criteria
Henceforth, all TPS grant proposals will be evaluated with an additional “activity” criterion in addition to the previous criteria specific to each proposal type. This criterion will be scored 1-5 and based solely on the activity of the student concerning the TPS organization and events. Below are example activity levels that merit each score to be used as guides for grant reviewers rather than steadfast rules:

5 – Exceptional activity: Leadership role in current or recent years (e.g. President, Recruitment Chair, etc. on the GSO) in addition to previous involvements in TPS activities.

4 – High activity: Generally active role in TPS activities including at least one major contribution to a TPS event (e.g. preparation for recruitment weekend, organization of industry visit, etc.) in addition to previous involvements in TPS activities.

3 – Moderate activity: Consistent contributions to TPS (e.g. attendance at all major TPS events, oral or poster presentations to the TPS-DG and the TPS Symposium) but without an organizational or leadership role.

2 – Low activity: Inconsistent contributions to TPS (e.g. mediocre attendance to TPS events, discussion groups and TPS Symposium).

1 – No activity: no contributions to TPS (e.g. no attendance to TPS events or leadership activity).

A checklist will be provided on the TPS grant application where applicants will check off their contributions (e.g. leadership position) as well as list how that contribution was manifested (e.g. Treasurer). An additional “other” section will be provided for applicants to list less common contributions which still merit consideration in the activity criterion (e.g. helping with driving during industry visits, organizing a workshop for TPS, etc). TPS activities should be listed in the applicant’s CV.

F. The Review Process
TPS encourages the submission of proposals in several categories. New categories will run for a probation period of two years and their continuity will be based on their success delivering positive assets to the TPS community. Funding for travel proposals should not exceed 60% of the total funding allocated to the grant competition. The Grant Committee will review non-travel proposals first, assign a funding level for them, and establish a ranking of these proposals for funding. The committee will then consider travel proposals and establish a ranking of proposals for funding.

Awarded funds will be used for the purpose stated in the original proposal and completed within the fiscal year. For travel proposals, the purpose includes the specific conference and the awardee’s role at the conference.
In the event that the awardee cannot use the awarded funds (e.g. not invited to a conference) or the original project needs to be modified, modifications of the original proposal should be submitted in writing (email) by the awardee to the Grant Competition Director. The Grant Competition Director will decide in consultation with the Grant Committee whether to rescind the award or conduct a re-evaluation. The Grant Competition Director shall be notified of the completion of funded proposals so that any unused funds can be redistributed according to the ranking of originally submitted proposals. The Grant Competition Director may choose to open an extraordinary application process for awarding unused funds or give the remaining funds to the TPS.

Because the dates of the conferences and trips submitted for travel proposals may not be aligned with the timeline of the TPS Grant competition and the end of the fiscal year, proposals for this category may be submitted to either fund a conference attendance (December-May) or to reimburse the expenses related with the attendance of a previous conference that occurred before the TPS Grant Competition (June-November).

G. Expectations from TPS awardees
   a. Presentation
      All TPS award recipients are expected to present the outcome of their award at a TPS-DG.
      - Travel award recipients are expected to present 3-4 slides summarizing the current trends of research from the talks at the meeting/conference.
      - Individual and collaborative research awardees will give a detailed presentation about their research outcomes.
   b. Report and acknowledgement
      - At the end of the research, awardees are also expected to submit a short report (about one page) of their results to TPS.
      - The awardee is expected to acknowledge TPS in their funding sources when the research or part of it supported by TPS results in a publication.
      - Travel awardees presenting a talk/poster at a conference are expected to acknowledge TPS as funding in their respective presentation.
   c. Training for equipment/software
      TPS student(s) and laboratory(ies) receiving awards for purchasing equipment or software or bringing new techniques to the TPS are responsible for upkeep of the same and making sure protocols and procedures for the technique is documented and made available to the TPS community. This should include the training of other students as well as making videos, protocols or other media that will ensure that the knowledge remains available to the TPS community.
   d. Serving on next grant panel
      All awardees should be prepared to serve on the next year’s grant panel, if called upon.

V. RECOMMENDATIONS
   A. Advertising TPS events at Virginia Tech – broadening the audience
      To ensure that people outside of the TPS community are aware of the activities of TPS, the organizer of the TPS-DG is encouraged to send a notification email to other mailing lists (e.g. departmental mailing lists).
      The same action is encouraged while advertising the TPS symposium.
An email can also be sent to the same mailing lists at the beginning of the Fall semester, asking individuals wanting to be kept up-to-date with TPS activities to sign up to the google group.

*Note:* The number of emails sent to these mailing lists should be kept to a minimum, *e.g.* once a year, at the beginning of the Fall semester, and for the main announcement of the TPS symposium.

**B. Keeping record of attendance and participation**

The organizers of each of the TPS events (TPS-DG, recruitment weekend, TPS symposium, various committees) should keep a precise record of attendance and participation and send the information to the TPS Director for archiving.

**C. Archiving material and documents about past TPS activities**

The TPS Director is responsible to ensure that all the documents and materials generated by the members of the TPS-EC and TPS-GSO are archived and organized. This archive will allow for access to records of recruitment, finance, granting, and other activities of TPS. The TPS Director can ask a TPS member to help in the archiving/organization of the material. This information should be made available to the future TPS Director and members of the TPS-EC and TPS-GSO.