

Improving Plants to Improve Lives

Strategy Review & 2024-2029 Five Year Plan

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Introduction

A strategic plan for 5 years requires a longer term, bigger picture view to establish what the organization is working towards. This means looking much further out -10 or 20 years - considering what the organization wants to achieve, who it wants to serve, and how, roughly, this will be achieved with the resources available.

Once developed, this vision constitutes the "True North" towards which a 5-year plan can be developed. It also provides direction that future Executive Committees & Committee Chairs can use to decide what the National Association for Plant Breeding (NAPB) will and will not do, while allowing scope for flexibility in the specifics, since the context NAPB operates within is continuously evolving.

The first part of this document details the strategy for the NAPB over the long term - who we aspire to serve and what we want to achieve a vision for NAPB in 10-20 years. From this, the steps that can and should be taken over the next 5 year period to move NAPB forwards become clearer. The goals that can be achieved over the next five years (2024-2029 inclusive) are articulated in the second part of the document.

What is NAPB's Story?

The National Association for Plant Breeding began in 2010 as an initiative that spun out of a Plant Breeding Coordinating Committee (PBCC) the same year. The <u>PBCC's goals</u> are to provide a long-term overview of the discipline and ensure public plant breeding resources are used efficiently. Other goals include ensuring consistency in educational standards & coordinating public investment in plant breeding capacity and infrastructure. However, PBCC recognized the need for an independently funded Professional Society in plant breeding. This new entity — established as a non-profit organization - would have greater scope to advocate for plant breeding than PBCC is entitled to and could more fully represent the discipline.

NAPB formally began at a meeting held in Texas A&M University with input & dedication from public & private sector volunteers. The <u>first Annual NAPB Meeting</u> was held in 2011 at College Station, Texas. Charges for membership began in 2015. From inception NAPB was rooted in the USA but with an international orientation, eg holding an Annual Meeting in Guelph, Canada & supporting the establishment of the African Plant Breeders Association.

Over time the Association has developed an incredibly vibrant graduate student movement and a reputation for friendly, hands-on annual meetings with a strong field-based component which bring together plant breeders from a wide spectrum of geographies working with a diverse range of plant species and technologies*.

Between NAPB's incorporation and the time of writing (Fall 2023) the challenges to agriculture and food security have only increased. With issues arising from political,

^{*} At the time of writing a proposal to adjust the meaning of the NAPB acronym to proactively reflect the increasingly wide range of professions, sciences and technologies involved in plant breeding has been discussed but not adopted

economic and environmental change around the world, the importance of plant breeding to contribute globally to a more sustainable and prosperous future has never been stronger.

What is our Purpose?

The National Association for Plant Breeding strengthens plant breeding to promote food security, quality of life, and a sustainable future. This is summarised in the tagline: "Improving Plants to Improve Lives".

We bring together experts from a highly dynamic collection of science and technology disciplines applied for the purpose of plant breeding and securing plant genetic diversity. Our community is broader than hands-on plant breeders but narrower than plant scientists. Target members are primarily professionals in both the public and private sector who apply science and technologies to plant breeding, and students who aspire to become professionals in this domain.

To be successful as an Association, including being able to create impact for the Plant Breeding community as a whole, we must first create benefit to our members. If members do not feel the advantage of being part of NAPB, all other goals will fail to be achieved.

For conciseness and clarity, unless the context makes clear otherwise, when the terms "Members", "Plant Breeders" or "Plant Breeding" are used in this document they refer to the community of Target Members outlined above.

Other organizations exist which also serve this group of individuals in different ways, such as the Crop Science Society of America and the American Society for Horticultural Science. These and other similar organizations are crucial partners with NAPB, however our different and unique offer is because we:

- focus specifically on plant breeding,
- foster cross-sector and cross-species learning opportunities (e.g., across forestry, row crops and horticulture),
- value hands-on plant breeding demonstrations as a differentiator at our Annual Meetings,
- prioritise creating connections within the plant breeding community through social & networking opportunities.

NAPB Strategic Plan 2024-29

NAPB In 2023 – An Appraisal

In April 2023 Former NAPB Presidents, the current Presidential Rotation and the long-time NAPB Treasurer met in Colorado Springs to evaluate NAPB's progress since founding, assess its characteristics, and consider the overall strategy of the Association. The following assessment was developed of NAPB's strengths and weaknesses.

What's going well?	What needs work?
Existing Strengths	Financial dependence on the Annual
Strong engagement with students and in	Meeting. Links between financial
workforce development.	resources & strategy could be clearer.
Focus on human-to-human interactions	Patchy member retention after meetings
(rather than, eg, publications), hinging	and after graduation.
around the annual meeting.	Advocacy work needs consolidation &
Brings together the public sector and	development with clear priorities.
private sector, good engagement from	Leadership terms are short and
both sides.	momentum is lost in transitions.
Only society for all things Plant	Narrowly focused on plant breeders –
Breeding.	attracting those in adjacent fields would
	be enriching for all.
Developing Strengths	 Low awareness of NAPB across the
Advocacy now showing momentum.	wider scientific and agricultural sectors.
Membership is growing (steadily).	Cooperation between public & private
Increasingly global in reach.	sector could be expanded.
Stable financial platform has developed.	Communication with members and the
Strong volunteer engagement.	wider world could be more frequent and
Leadership is accessible to members.	more effective.

The discussion with this group resulted in the proposal of the "Four Pillars" of activity around which NAPB activities could be coalesced (see Figure 1).



Figure 1: The 4 Pillars of NAPB Activity

At the 2023 Annual Meeting in Clemson, SC, a proposal was put to Business Meeting attendees to incorporate the Four Pillar structure into the next Strategic Plan. This motion was overwhelmingly approved, and hence is adopted in this document.

Aspirations for NAPB – The future state.

NAPB wants to see the discipline of plant breeding, and the people who work within it, flourish.

By 2035 NAPB will:

- Have loyal members who feel they gain year-upon-year benefit from their membership.
- Create bridges and collaborations between public and private sectors. This will
 provide alignment and connectivity within Plant Breeding and its wider, contributory
 sciences & technologies especially genetic resource preservation.
- Vocally support public plant breeding education and associated programs (quality and quantity) so that future human and genetic resources underpinning the needs of the discipline can be met.
- Be a credible source of scientific knowledge and science policy expertise in the eyes
 of academia, government, industry and non-profit organizations engaged in
 agriculture. Across domestic and international audiences, NAPB will be considered
 the go-to experts regarding plant improvement.
- Create networks, ongoing professional development opportunities and friendships to support generations of professionals throughout their careers. This will help professionals stay informed about continuous expansion in plant breeding methodology and scientific knowledge.
- Achieve its goals with a foundation of long-term financial stability, by adopting a financial model that ensures income and reserves are sufficient to achieve the Association's ambitions.

Workforce Development

- NAPB is a major influence in workforce development, recognized as the leading organization to partner with to find, nurture and advance elite plant breeding talent at both student and professional levels.
- NAPB supports professionals from diverse backgrounds throughout their careers with opportunities for both technical & non-technical continuous professional development strong networks within the discipline.
- NAPB helps its members develop rewarding relationships and plant breeding careers whether inside the US or internationally, in plant breeding programs or closely connected organizations.

Community and Science

- NAPB is a diverse and inclusive USA-based and internationally-oriented community.
- NAPB's members will be primarily professionals and students from Plant Breeding and the allied sciences and disciplines that contribute to plant improvement.
- NAPB creates strong cooperative connections with other organizations in agriculture and science, which helps to put plant breeding in its wider scientific and political context.
- NAPB recognizes and celebrates outstanding achievement in plant breeding and provides continuous professional development for members. Together these enable members to remain appraised of plant breeding's changing frontiers and gain a deeper understanding about emerging knowledge and techniques.

Organization and Finance

- NAPB is driven primarily by volunteers, harnessing their energy and enthusiasm within an efficient and nimble organization.
- Administrative activities require minimal overhead and management from the Executive Committee and Committee Chairs. Robust organizational memory and procedures allow smooth committee operations & transitions between leaders.
- NAPB has grown and diversified its sources of income in line with its ambitions, and
 uses its financial capability to achieve NAPB's goals and benefit the plant breeding
 community.

Communications & Advocacy

- NAPB is a thought leader about plant breeding and associated policy implications. It transparently and even handedly advocates for and communicates about the importance of plant trait improvement and associated sciences / technologies.
- NAPB's advocacy, alone and with partners, supports the maintenance and enhancement of public plant breeding capability at both the state and federal level.
- Public, scientific, and governmental discourse recognizes the importance of plant breeding in maintaining food security, fighting climate change, and improving agriculture's sustainability. Genetic resource preservation and management is appreciated as a crucial underpinning element.
- The expertise and enthusiasm of NAPB members engages and educates the public, policy makers, students, and the agri-food community.

How will we know that we have been successful?

- NAPB will have a well-articulated 'value proposition' for members (beyond attending the annual meeting). There will be clear evidence that this is working, reflected in membership levels, engagement, and renewal rates (not growth for growth's sake).
 - (800 members by 2035, 75% renewal rate)
- Members will show meaningful diversity in terms all of the following (at minimum): crop, geography, career stage, gender, ethnicity, employer type, scientific background etc. There is substantial interaction between these groups throughout NAPB operations no "cliques" are created.
- Constructive partnerships will exist and endure with other associations, increasing our reputation across the scientific and agricultural communities.

 (3-4 productive on-going partnerships to achieve core goals)
- NAPB's sources of income will be diversified and provide sufficient resources to financially support pursuit of its aspirations.
 (<= 40% income from annual meeting)
- Our advocacy priorities will be clear and effective mechanisms will be in place solo or with partners to engage with decision makers at federal, state and institution levels. This will ensure the importance of maintaining public plant breeding and germplasm preservation are understood & adequately funded.
 (One core advocacy priority of the National Association for Plant Breeding will be represented in the approved 20th Farm Bill of the United States.)
- Employers from the private and public sector will recognise our contribution to developing greater depth and breadth of capacity in plant breeding overall, and to our members' careers specifically. This will encourage them to engage with NAPB more systematically and constructively.

(The number of sponsors will double, workforce insights will be shared publicly)

What is our Strategy to Achieve our Aspirations? (How will we get there?)

Workforce Development

Maintain Early Career Members

NAPB will understand the reasons that members lapse upon graduation and ensure that the value proposition for these members is enhanced. This will result in most graduate student members (>=50%) transitioning to enduring professional membership.

Peer to Peer mentoring

Career-long professional support and inspiration will be created through "Circles" of professional plant breeders forming peer-to-peer groups, focused on personal and professional development while also providing networking and a safe space for problem solving and discussion. This will probably be supported by professional input to ensure successful agenda development and facilitation.

Engagement with major employers (public, private and charitable sector)

NAPB will understand the future workforce needs of employers and the role that NAPB can play in contributing to this. Through this work the Association will develop insight which can be used to ensure its activities are more tailored to meeting employers' needs,

- helping NAPB to equip the workforce with relevant skills and experiences
- increasing the opportunity to raise sponsorship
- increasing support among employers for their teams to be NAPB members and contribute volunteer labor

Maintain vibrancy of Graduate Student Community

The existing success and vibrancy of the NAPB community will be maintained, including social and job-search opportunities, avenues to gain leadership experience in voluntary roles, and the scholarship programs which recognise and mentor individuals.

Educational Consistency

NAPB will collaborate with PBCC and other organizations to support the development of core curriculum for plant breeding courses across USA.

Community and Science

Sub-communities and events

Vibrant sub-communities will be built through of additional events beyond the Annual Meeting. These could include regional meetings, field tours or thematic "deep-dive" subgroups, and could be online or offline. These high-quality events will be designed to promote professional development, increase networking opportunities. They will also offer opportunities for new sources of income.

Fruitful cooperation

NAPB will cooperate with other organizations to pursue its goals in long-term multi-year initiatives. Examples could include cooperating with PBCC to develop and implement a core curriculum across plant breeding courses or cooperating with ASTA and Tri-Societies to advance NAPB's advocacy priorities.

Annual Meetings

NAPB will continue to deliver engaging and exciting Annual Meetings with involving field trips for hands-on plant breeding exposure, and extensive networking and socializing opportunities. Members will continue to value these events which will continue to be a major reason to be an NAPB member.

Member engagement

NAPB will find additional ways to measure and enhance engagement with its members. This includes developing the quantity and effectiveness of communication to members and tracking the extent of membership participation and volunteering.

International connections

NAPB will build enduring and cooperative relationships with plant breeders and plant breeding associations around the world.

Organization and Finance

A compelling value proposition

Membership 'churn' is high with lapsing occurring especially after the Annual Meeting in the transition from student to early career professional. NAPB will develop its value proposition so members who join to attend an outstanding Annual Meeting perceive a greater level of value from being an NAPB member at other times. This will result in increased engagement, higher member retention and greater revenue.

Aligned strategy, structure, finances

The committee structure will be reviewed, and changes implemented so that the committee structure is simplified and volunteer efforts are channelled into initiatives which advance the NAPB Strategy. More members will be able to engage with NAPB work through the adoption of a greater range of ways to volunteer (eg project-focused, shorter term).

Volunteers and continuity

We will get better at "on boarding" new volunteers. The majority of new Committee Leaders (75%) have a positive experience of transition into role and feel productive in their roles, and continuity of volunteer engagement will be increased, enhancing continuity.

Ways of Working

We will gather insights to inform decision making, such as surveying members and maintaining an insight-oriented dialogue with partners, and conducting trials and experiments to test ideas. We will keep track of lessons learnt and progress against clear objectives.

Diversified sources of income

Currently the majority of income is derived from the Annual Meeting. New sources of income – from members, sponsors and activities – will be identified, trialled and adopted so that new revenue sources will contribute to 60% of income.

Communications & Advocacy

Clear goals and priorities

Core advocacy goals & priorities are explicit and reviewed regularly. Member views are used as input to develop NAPB's position on relevant topics.

Work with others

NAPB will "map" the landscape of potential partners who are aligned on core advocacy goals so that we know how to use our position in the agricultural research "ecosystem" to maximum effect. Relationships with partners will be built on cooperation and effective sharing of expertise so NAPB's advocacy and communication effectiveness is enhanced in a fruitful and long-term fashion.

Resourcing needs

An analysis of skills, financial resources, number of volunteers required to achieve communication and advocacy goals will be developed and maintained, and a long-term plan implemented to meet these needs. This will ensure a suitable breadth and depth of the human (time, skills) and financial resources is developed and maintained. A substantial cadre of members (>=20) who are able and willing to engage in science-communication and advocacy activities (solo or with partner organizations) will be developed.

Public discourse

NAPB will find ways to engage — alone and with collaborators - in the public discourse about food security, healthy food and how plant breeding and the technologies it uses can offer solutions. These could include supporting high school Agricultural Education teachers to discuss plant breeding, or working with PBCC to communicate the impact that plant breeding has on our food system.

NAPB Strategic Plan 2024-29

Notes

During the consultation process two topics generated discussion and are worthy of clarification.

What is meant by "Communication"?

The communication activities referred to in the "Communication and Advocacy" pillar are outward-focused. This means communication about plant breeding to the wider world, encompassing a range of objectives including education of non-plant breeders and awareness raising more generally. This would include social media activity seen by the wider world and the background awareness raising that forms part of Advocacy work.

Production of a newsletter for NAPB members, and internally focused communications about the activity of the Association for the benefit of members (e.g. emails to members), sits under the "Organization and Finance" pillar as it is one of the operational tasks to keep members informed and engaged. This work would draw on the activities of all the other pillars for content.

Organizational Design

For a strategy to be effective it is important that the structure of the organization supports the achievement of the strategic priorities. The question of how to align the existing Committee structure with the Four Pillars structure generated a lot of discussion!

This strategy document recognises that the current number & arrangement of committees and working groups has drawbacks including:

- Staffing all committees, especially the 3-year officer rotation, is frequently difficult.
- Some committees have unclear remits.
- Many important pieces of work that the NAPB wants & needs to do don't naturally fit within the Committee structure.
- It is very time consuming for the EC to maintain adequate connection with so many groups
- Many NAPB members would be keen to engage on specific topics or projects but don't feel aligned to a particular committee.

This strategy recommends a future structure draws on more project teams and that a piece of work is carried out to explore how the existing structure should change to better align with the 4-Pillars structure.

It is, however, silent on the specifics on what how this should be achieved. Working this out is a task that will require its own project team, and input from across the working groups, committees, and members. The new structure will almost certainly be something that evolves over time and the transition will not take place in one go.

What must we achieve in the next 5 years in pursuit of our Strategy?

Workforce Development

- Survey public and private sector employers to understand their needs for the future of plant breeding, and the role that NAPB could play in meeting these needs. Feed this into the development of our proposition and financial model.
- Develop a proposal for the peer-to-peer Mentoring Circles, taking into account costs and the revenue-generating potential of such an initiative.
- Survey and obtain testimonials from early career professionals who have benefited from NAPB membership. Use these to understand and counteract lapsing at Early Career stage.
- Understand the potential role NAPB can play in the Core Curriculum work initiated by the PBCC.

Community and Science

- Members will be surveyed to understand what they value from membership and what would encourage them to remain members for longer.
- Experiment with different types of meeting virtual, regional, career stage are trialled and refined to supplement the Annual Meeting and maintain connection.
 Document the experience for ongoing learning. Creating at least one regional networking event per year beginning in 2025, or a total of 4 events additional to the Annual Meeting by Jan. 1, 2030.
- Develop plans to establish and nurture connections to other plant breeding associations such as progressing the Round Table of World Plant Breeding Associations and other organizations (eg the CG centres) engaged in crop development and germplasm preservation.
- Continue the Awards program and find ways to make this type of recognition even more prestigious.

Organization and Finance

- NAPB organizational structure and committees will be reviewed and aligned with the four-pillar strategy. Greater use will be made of working groups and projects teams, allowing more flexible and task-oriented contributions than the current Committee & Working Group structure permits.
- The Bylaws will be updated to reflect changes to strategy and structure.
- A survey will be used to understand EC & committee leaders' experience of transition into their roles. Identify lessons and repeat to track improvement.
- The budget process and expenditure frameworks will be enhanced so that NAPB can
 use conservative financial management with providing resources to meet the
 Association's needs.
- New revenue models will be developed—eg additional charges to take part in supplementary meetings, or career support frameworks. A position will be developed on what content / events should be made freely available vs what should be charged for.

Communications and Advocacy

- Develop and document NAPB's advocacy priorities and goals.
- Develop a series of position papers on specific themes (tied to priorities) and find ways to ensure members views are sought and a balance of views is reflected in positions taken.
- Map the Advocacy environment and develop a view on our best opportunities for influence and optimal partnerships to build in pursuit of advocacy goals.
- Create a resources plan to help NAPB achieve its advocacy and communication goals. This will include the potential to partner with other organizations and the expertise currently available within the membership, and methods of increasing the breadth and depth of advocacy and communication skills within the Association.
- Find mechanisms to engage with schools and educators, eg learning from CSU-Spur