USDA Animal and Plant Health Inspection Service
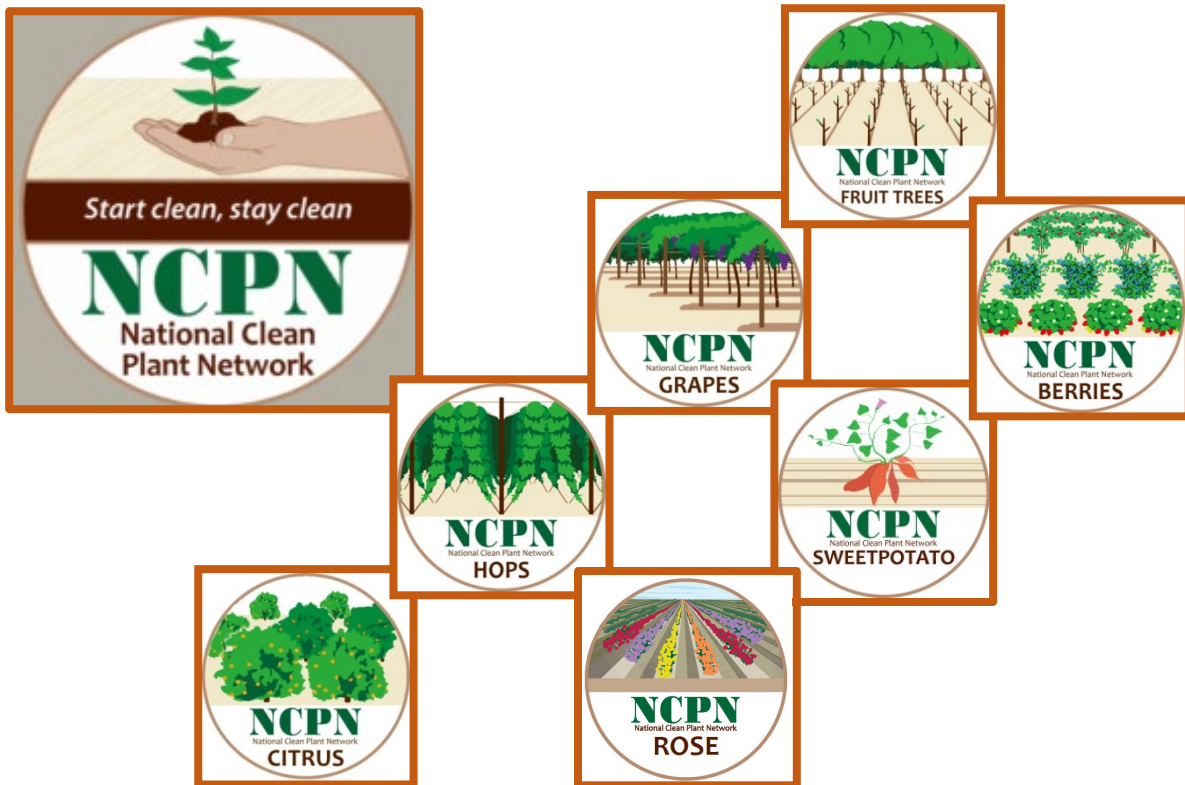U.S. DEPARTMENT OF AGRICULTURE

# National Clean Plant Network

## 2021-2025 Strategic Plan and Program Implementation Guide

## Appendix



*Healthy Agriculture through Clean Plants*

## Objectives, Actions, Inputs, Outputs, Outcomes, Metrics, and Timelines

This appendix serves the NCPN Strategic Plan 2021-2025. Refer to this appendix for details on implementation steps, specifically the Action Items, Inputs, Outputs, Outcomes, Metrics and Timelines associated with each Goal and Objective. Leaders and members in the seven commodity governing bodies, as well as the programs Special Initiatives, should refine this information to build operational plans tailored to their crop or program and long-term needs.

**NCPN Goal # 1 – Program Operations:**
**Optimize the Production, Maintenance, and Distribution of Clean Plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **1.1** **Stakeholder Driven Clean Plant Centers:** *Develop a network of centers that is focused on the stakeholder and their needs for clean plant material.* | 1. National Advisory Group: Establish an advisory group focused on ensuring the stakeholder-driven mission of NCPN | • Volunteer time (hours) and expertise | • Advice (stakeholder needs) <br><br> • Stakeholder-driven decision making | • Centers become more responsive and stakeholder focused <br><br> • Real time adjustments to industry needs | • Advisory Group will be established in FY 2021 <br><br> • Adjustments initiated FY 2021 |
|  | 2. Clean Plant Prioritization: Commodity governing bodies work with industry to determine materials most needed by industry | • Volunteer time (hours) and expertise <br><br> • Program Directors, Industry representatives <br><br> • Website with available plant material | • Varietal Needs Prioritization: List of high priority domestic and international varieties for introduction and retention | • Optimized Resources Utilization: Centers focus on highest priorities; best use of resources | • Ongoing, update during Tier-2 meetings |

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|---|---|---|---|---|---|
| **NCPN Goal # 1 – Program Operations:** *(continued)* <br>**Optimize the Production, Maintenance, and Distribution of Clean Plants** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **1.2 <br>Existing and New Centers:** *Optimize the number of NCPN Centers to ensure optimal and complete specialty crop coverage.* | 1. Study: Conduct study to determine optimal number/use of centers per existing NCPN commodity | • Determination of factors that prescribe placement of centers (location, acreage, number of growers, disease pressure and value of crop) <br><br>• NCPN Tier II industry members <br><br>• Survey industry to determine excess and/or deficiencies in capacity | • Study: Study developed | • Best use of resources; network optimized; centers added, reduced, and adjusted as needed | • On-going |

**NCPN Goal # 1 – Program Operations:** *(continued)*
**Optimize the Production, Maintenance, and Distribution of Clean Plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **1.2 (continued) Existing and New Centers:** *Optimize the number of NCPN Centers to ensure optimal and complete specialty crop coverage.* | 2. New Crops: Ascertain crops that might enter the Network in 2021-2025 | • Determination of new crops that have: ➢ Industry requests ➢ Disease pressure ➢ Sufficient acreage and/or number of growers • Crop value • Established clean-up methodology | • Proposed New Crops: Develop listing of new crops proposed for NCPN entry • Requirements and procedures developed | • Understanding needs of crops seeking NCPN support | • FY 2021 • Situationally as new crops emerge seeking NCPN support |
| | 3. Protocols: Develop and communicate criteria, requirements, and procedures for new crops seeking NCPN entry and support | • NCPN leadership • Industry inputs • Established clean-up methodology • Ascertain Center Capacity (Current or new) | • Protocols Communicated: Requirements, procedures communicated through the NCPN Request for Proposals (RFP) and the Education & Outreach initiative | • To the extent practical, incorporation of crops with centers that will be able to support themselves in a diminishing funding environment • Ability to support new industries • Incorporate new talent within NCPN | • Requirements and procedures developed for use in the NCPN FY 2021 RFP and in subsequent issuances |

**NCPN Goal # 1 – Program Operations:** *(continued)*
**Optimize the Production, Maintenance, and Distribution of Clean Plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **1.3 Protocols, Standards, Collaboration, and Coordination:** *Improve and coordinate cleanup activities and maintenance of clean plants.* | 1. Protocols and Standards: Address the development of center laboratory and foundation protocols for clean plant processing and standards to harmonize processes among centers, within a crop, and across the network; this includes diagnostics and therapeutics protocols among others | • Detailed protocols currently in use<br><br>• 'Director's corner discussions<br><br>• Quality management Quality control program<br><br>• Tier II/WERA-20/APS and other Meetings<br><br>• On-line repositories such as Google Drive, Sharepoint, or others | • Protocols Identified: Protocol needs identified for centers and by crops.<br>• Protocols Developed: Protocols established and accepted by centers<br>• Harmonization: Standards harmonized across all centers for a particular crop<br>• Quality Management: Quality Assurance programs developed to support and advance protocols and standards | • Duplication of efforts avoided<br><br>• Stakeholder assurance that protocols are 'state-of-the-art"<br><br>• Optimization of protocols based on collaborative efforts | • Discussions during the quality control meetings, on-going<br><br>• Work initiated in FY 2021 |
| | 2. Data/Information Resourcing: Resource and Develop data/information management and sharing activities and systems | • Information management systems currently in use, new state-of the-art" IM systems<br><br>• Available databases in different centers<br><br>• Experience and troubleshooting the different software or hardware used | • Data and information sharing teams established<br><br>• Systems developed; nationwide or locally but linkable to others as appropriate.<br><br>• Data managers identified at the national and clean plant center level | • Minimized duplication and optimal use of resources | • FY 2021 and ongoing<br><br>• Establish an NCPN quality management quality control group<br><br>• Establish science-based info sharing teams |

| NCPN Goal # 1 – Program Operations: *(continued)* Optimize the Production, Maintenance, and Distribution of Clean Plants | | | | | |
|---|---|---|---|---|---|
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **1.3** *(continued)* **Protocols, Standards, Collaboration, and Coordination:** *Improve and coordinate cleanup activities and maintenance of clean plants.* | 3. <u>Information Working Group:</u> Create working group to review and recommend methods for data management that are appropriate for each participating clean plant center and program | • Volunteer time and expertise <br><br> • Available databases in different centers <br><br> • Experience and troubleshooting the different software or hardware used | • Develop data/information management systems for coordination of cleanup activities and maintenance and tracking of clean plants by commodity | • Minimized duplication and optimal use of resources <br><br> • Use of appropriate resources with the goal to develop a process where databases can talk to each other at the commodity and/or Network level | • FY 2021 |

| NCPN Goal # 1 – Program Operations: *(continued)* |||||
|---|---|---|---|---|
| **Optimize the Production, Maintenance, and Distribution of Clean Plants** |||||

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **1.4 Foundation Management:** *Assess, support, and manage a Network of nationally-focused clean plant foundations and collections.* | 1. Identify G1 foundation sources and potential sources of support | Data collection from all involved parties:<br><br>• National Clonal Germplasm Repositories<br><br>• Collections<br><br>• G1 Foundations/NCPN Centers<br><br>• Industry groups<br><br>• Tier II | • Identifying infrastructure needs<br><br>• Divert resources where needed | • Optimal use of resources<br><br>• Safeguarding crops from natural and other catastrophes<br><br>• Better understanding of industry needs | • FY 2022 |
| | 2. New Foundation Needs Assessment and Establishment: Ascertain whether, where, and what kind of new foundations are warranted; assessing both regional and national needs as well as opportunities and threats | • G1 Foundations/NCPN Centers<br><br>• Industry groups<br><br>• Tier II | • Identifying infrastructure needs, crops, opportunities, and threats<br><br>• Divert resources where needed | • Optimal use of resources<br><br>• Safeguarding crops from natural and other catastrophes<br><br>• Better understanding of industry needs | • FY 2022 |

**NCPN Goal # 1 – Program Operations:** *(continued)*
**Optimize the Production, Maintenance, and Distribution of Clean Plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **1.4 (continued) Foundation Management:** *Assess, support, and manage a Network of nationally-focused clean plant foundations and collections.* | 3. Plant Collections as Foundations: Determine the feasibility of incorporating special plant collections as foundations; assessing ownership and accessibility questions | • Industry groups<br><br>• Tier II | • Availability of more clean material, including material of historical value of relevance to current interests | • Optimal use of resources<br><br>• Safeguarding crops from natural and other catastrophes | • FY 2022 |
| | 4. Foundation Material Priority setting: Determine what is in foundations and for de-accessioning material | • G1 Foundations/NCPN Centers<br><br>• Industry groups<br><br>• Tier II | • Process to determine which plant accessions need to be eliminated | • Optimal use of resources | • FY 2022 |
| | 5. Plant List Updates: Each center update their list of cultivars every 6 months and provide to crop coordinators for use within the Network | • Current plant list | • Continuation in providing source material<br><br>• Shared site or other comprehensive access available to everyone in the Network | • Greater confidence that material will be available when needed.<br><br>• Strengthen the network and clearly communicate material availability | • Tissue culture available by 2021 for Sweet Potatoes, Berries, Grapes, Hops, Fruit Trees<br>• Determine what could serve as a back-up for Roses and Citrus<br>• 10% of the most demanded varieties are backed-up by 2021 |

| NCPN Goal # 1 – Program Operations: *(continued)* Optimize the Production, Maintenance, and Distribution of Clean Plants | | | | | |
|---|---|---|---|---|---|
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
| 1.5 **Plant Availability:** *Develop and maintain an up-to-date list(s) of available cultivars. Facilitate the distribution of clean products at Clean Plant Centers.* | 1. <u>Database:</u> Develop database of clean accessions for each Clean Plant Center (CPC) | • Clean plant center lists of available products<br><br>• Annual updates<br><br>• Resources for Centers to complete the work | • <u>Plant Lists:</u> Lists of clean accessions obtained and updated annually/per schedule<br><br>• <u>Availability:</u> Webpage of all cultivars available at CPCs and share list on NCPN (National Stakeholder site) | • <u>Sources:</u> Stakeholders can identify sources of clean plants<br><br>• <u>Access:</u> Stakeholders are aware and have access to clean material list<br><br>• <u>Efficiencies:</u> No duplication of efforts<br><br>• <u>Lists:</u> Updated as needed (remain current) and dates of last update notated on the list | • FY 2021 with advancements in successive years |

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|---|---|---|---|---|---|
| **NCPN Goal # 1 – Program Operations:** *(continued)* <br> **Optimize the Production, Maintenance, and Distribution of Clean Plants** | | | | | |
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
| **1.6 Permitting and Associated Regulatory Matters:** *Facilitate discussions with permitting, regulatory, and related program officials in support of Network activities.* | 1. Working Group: Establish NCPN/Permits and associated Working Groups | • Volunteer hours and expertise <br><br> • Directors with experience obtaining permits and on other regulatory and related matters. <br><br> • Needs identified based on Tier II Industry discussions <br><br> • Virus database will allow for appropriate measures/steps taken to secure permit | • Organized: Working Group established with charter, members, mission | • Availability: Focused body available to NCPN to address this objective <br><br> • Support: Group available to provide APHIS with scientific feedback as requested | • Group formed; FY 2021 <br><br> • Annual Group report on collaboration with APHIS |

| NCPN Goal # 1 – Program Operations: *(continued)* |||||| 
| **Optimize the Production, Maintenance, and Distribution of Clean Plants** |||||| 
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **1.6** **(continued)** **Permitting and Associated Regulatory Matters:** *Facilitate discussions with permitting, regulatory, and related program officials in support of Network activities.* | 2. Inventory: Survey NCPN clean plant centers for permit usage, types, needs; as well as other issues regarding regulatory and related matters | • Current list of permits, permit usage, and need by Center<br><br>• List of other relevant regulatory and related issues<br><br>• Center directors, and Coordinators | • Inventory Developed: Inventory of NCPN center permits and other related issues<br><br>• Needs Assessment: Determination of permit and related needs at NCPN centers<br><br>Positive Controls Permits: All NCPN Centers desiring positive controls have 526's in place | • Permits List: Listing of permits held at NCPN centers<br><br>• Gap Analysis: NCPN Center permit 'gap' analysis<br><br>• Positive Controls Movement: Ability to ship positive controls between centers.<br><br>• Listing of Related Issues: Listing of relevant regulatory and related issues | • Inventory conducted and completed in FY 2021; updated annually<br><br>• NCPN Centers seeking needed permits; FY 2021 and updated annually<br><br>• All NCPN centers needing 526's have them in FY 2021 |
| | 3. Controlled Import Permit (CIP): Review conditions and usage of the NCPN (CIP) | • Current list of CIPs by center | • CIP Assessments: Needs or gaps in NCPN/CIP identified<br><br>• CIP Adjustments: Action initiated by Centers to adjust CIP's for greater specific relevance | • CIP Permit Improvement: General NCPN/CIP improved<br><br>• CIP's Adjusted: Individual Center CIP's modified for greater relevance | • New APHIS approved template; FY 2021<br><br>• 25% of CIP Centers with updated CIP; all NCPN Centers with CIP's reviewed and adjusted as needed by FY 2023 |
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**NCPN Goal # 1 – Program Operations:** *(continued)*
**Optimize the Production, Maintenance, and Distribution of Clean Plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
|---|---|---|---|---|---|
| **1.6** *(continued)* <u>**Permitting and Associated Regulatory Matters**</u>: *Facilitate discussions with permitting, regulatory, and related program officials in support of Network activities.* | 4. <u>Info Data System:</u> Work with APHIS to obtain needed project support on information management to facilitate regulatory decision-making | • Virus database<br><br>• NCPN researchers/directors | • <u>Working Group Focused:</u> NCPN Permit Working Group formed and oriented to this task<br><br>• <u>Project Funding:</u> Project funding identified and secured<br><br>• <u>Information:</u> Information system developed | • <u>Insights:</u> NCPN Permits Working Group providing APHIS with insights<br><br>• <u>Initiative operationalized:</u> Project is resourced and operational<br><br>• <u>Decision-making:</u> Improved USDA regulatory decision-making | • Group convened for this purpose by APHIS at least 2x/year; FY 2021<br><br>• Project cooperative agreement let by FY 2021<br><br>• System has information input on 25% of pathogens of NCPN interest; initiates functionality FY 2021 |

| NCPN Goal # 1 – Program Operations: *(continued)* | | | | | |
|---|---|---|---|---|---|
| **Optimize the Production, Maintenance, and Distribution of Clean Plants** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **1.7 International Clean Plant Program Connections:** *Centers are well connected internationally for material access and regulatory purposes.* | 1. Collaborating Centers and Scientists and Sharing of International SOPs: Extend NCPN collaboration internationally to proposed or similar programs at the global, regional, or national level (such as IPPC, EPPO, NAPPO, the QUADS, etc.). Harmonize and share Standard Operating Procedures (SOP's) with international entities | • Multiple countries have programs in place with good experience with NCPN crops<br><br>• Established contacts and collaborations between scientists or new contacts and collaborations<br><br>• Connections/coll aborations with international scientists that work on NCPN crops.<br><br>• Detailed protocols currently in use<br><br>• Experience with different crops and troubleshooting among centers in a commodity group<br><br>• SOP developed and some already shared among centers | • Direct lines of communicatio n, better sharing of information and results<br><br>• SOPs at the international level harmonized | • Regulatory officials are confident in the international movement of clean plants among centers and their equivalents<br><br>• Access to high quality material<br><br>• Reduces the risk of illegal plant material movement<br><br>• Connections with international group will avert crisis in the discovery of new pathogens<br><br>• Better management of resources and reduce duplication efforts at the international center | • FY 2021 and ongoing |

| NCPN Goal # 2 – Advancing Special Initiatives: Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants ||||||
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| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **2.1** **Use Advanced Diagnostics:** *Use more accurate, sensitive and comprehensive detection methods to accelerate the production of clean plants. Additionally, identify risk, including that of not adopting new technologies.* | 1. Resource Allocation: Allocate resources to support optimization and adaptation of new technologies | • Determination of current/potential resources and new technologies<br><br>• Personnel with expertise in diagnostics<br><br>• Network of international partners that are pioneers in new diagnostic technologies | • New technologies adopted throughout the network<br><br>• Better collaboration with partners outside NCPN so as to improve and implement new diagnostic technologies | • Enhance international competitiveness<br><br>• Higher efficiency for the network<br><br>• Stability in the network<br><br>• Higher quality G1 material | • All: higher efficiency (# of accessions) by 25% - FY 2023<br><br>• SOPs initiated in FY 2021 and ongoing |
|  | 2. Training: Train NCPN members in the new technologies and protocols | • New, improved protocols<br><br>• Personnel with expertise in diagnostics | • NCPN members with enhanced diagnostics skills.<br><br>• Continuity. No fallbacks because of retirements | • Higher efficiency for the network<br><br>• Stability of CPCs: member cross-training, redundancy | • FY 2021 |

| NCPN Goal # 2 – Advancing Special Initiatives: *(continued)* | | | | | |
|---|---|---|---|---|---|
| **Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **2.1 *(continued)* Use Advanced Diagnostics:** *Use more accurate, sensitive and comprehensive detection methods to accelerate the production of clean plants. Additionally, identify risk, including that of not adopting new technologies.* | 3. <u>Protocol Evaluation and Improvement</u>: Evaluate existing protocols for accuracy, sensitivity, and identify better protocols; including novel protocols for cryotherapy, thermotherapy, and chemotherapy, as well as plant propagation, *in vitro* protocols, and media | • Existing protocols<br><br>• Centers with experience in diagnostics and clean-up | • Peer-reviewed publications<br><br>• More inclusive testing<br><br>• Faster clean-up | • Greater accuracy and sensitivity to detect pathogens and faster delivery of clean plants | • FY 2021 |
| | 4. New <u>Protocol Implementation</u>: Implement protocols that exceed present standards | • New Protocols | • Better technologies for targeted pathogen elimination<br><br>• Measurable laboratory standards<br><br>• Improved clean-up protocols | • Greater accuracy and sensitivity to detect pathogens and faster delivery of clean plants | • FY 2022 |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.1** *(continued)* **Use Advanced Diagnostics:** *Use more accurate, sensitive and comprehensive detection methods to accelerate the production of clean plants. Additionally, identify risk, including that of not adopting new technologies.* | 5. <u>Standardized Protocols:</u> <br>• Implement standardized commodity-specific protocols where there is need <br>• Coordinate efforts with APHIS and State regulatory officials to facilitate adoption of new protocol technologies, including analysis of risk | • List of evaluated protocols <br><br>• Funding to collect and assess protocols | • Better detection of targeted and new pathogens <br><br>• Increase number of accessions tested, and decrease time required to release. <br><br>• Peer-review publications | • Distribution of expertise among CPCs <br><br>• Better confidence on the quality of G1 plants <br><br>• Minimize risk for epidemics | • FY 2021 |
| | 6. <u>Equipment:</u> Update/Upgrade equipment in CPC to perform testing | • Determination of what equipment is needed to do testing <br><br>• Funding | • State-of-the-art diagnostic equipment <br><br>• Expansion of G1 accessions | • Higher detection accuracy and sensitivity of targeted pathogens <br><br>• Higher number/quality of G1 plants | • On-going |

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| **NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*<br>**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **2.2 Foundation Protection:** *Use new technologies to safeguard and back-up foundation material.* | 1. <u>Determine needs:</u> Establish a working group to ascertain needs | • Volunteers and time | • More efficient technologies implemented for managing G-1 blocks<br>• Less loss<br>• List of needs | • Improved plant health; facilitate maintenance; survival | • Highly trained staff on the new technologies<br>• Availability of non-compromised plant material<br>• Replanting costs drop |
| | 2. <u>Technology Evaluation:</u> Evaluate new technologies for accuracy and sensitivity | • Tier II and Industry | • More efficient technologies implemented for managing G-1 blocks-less loss | • Improved plant health; facilitate maintenance, survival | • FY 2021-ongoing |
| | 3. <u>Training:</u> Train NCPN members in the new technologies | • Tier II | • Highly trained staff on the new technologies<br>• Opportunity for professional development for staff<br>• Peer-reviewed publications | • Opportunity of an appropriately staffed CPC | • FY 2021-ongoing |
| | 4. <u>Equipment:</u> Update/Upgrade equipment in CPC to support foundation protection activities | • Funding | • Improved/upgraded equipment | • Improved plant protection | • FY 2021-ongoing |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.2** *(continued)* **Foundation Protection:** *Use new technologies to safeguard and back-up foundation material.* | 5. <u>Foundation Protection Plans:</u> Establish Center, Crop, and Network oriented plans to safeguard and back-up foundation materials | • Tier II and industry | • Improved back up plans | • Redundancy in the Network | • FY 2022 - ongoing |
| | 6. <u>Cryopreservation Technology Investigation:</u> Determine feasibility of cryopreservation of material of interest to NCPN | • Plant Germplasm Preservation, Research Unit, Tier II and Industry | • Evaluation of feasibility study | • Back up of material in state-of-the-art system | • FY 2023 - ongoing |

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| **NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)* <br> **Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **2.3 Natural Disaster Preparation:** *Secure clean material in case of natural disasters or disease outbreaks.* | 1. <u>Ascertaining Vulnerabilities:</u> Identify risks for each center and the centers that have the highest vulnerabilities | • Tier II Industry | • Strengthened collaborations with ARS (Ft. Collins) and with other CPC's <br> • Updated vulnerability list | • Increased awareness of vulnerabilities | • Tier II – 2021 annual meetings |
| | 2. <u>Develop contingency plans for commodity groups</u> | • NCPN Management Team (MT) | • Develop plans and Instructions | • Redundancy in case of emergencies/catastrophes <br><br> • New paradigms for how foundations are kept and managed | • FY 2021 |
| | 3. <u>Implement Contingency Plans:</u> Complete and implement contingency plans with industry involvement | • Tier II <br><br> • Industry | • Secure material | • Quantification of vulnerabilities <br><br> • Greater confidence that material will be available when needed <br><br> • Strengthen the network | • FY 2022 |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.4 Clean Plant Material Demand:** *Determine Industry Needs for Clean Plant Material.* | 1. Clean Plant Material Needs Analysis: Evaluate the need for G1 material and the capability to meet the need; including variety, demand, capacity, availability, redundancy and retention | • Collect Data from Industry, Tier II, and whatever sources may have it available<br>• Gather predictions from Industry and Tier II to identify future capacity/inventory needs (Tier II)<br>• Identify current capacity/inventory (Tier II) | • List of potential successful varieties | • Availability of clean plant material more harmonized with industry needs<br><br>• Limit waste of resources | • FY 2021 |
| | 2. New Foundations: Expand; create foundations at locations as identified by the industry | • Industry | • New foundations | • Redundancy and better response to industry needs | • Establish as needed new G1 foundations |
| | 3. Breeders and Other Entities: Engage breeders and entities engaged in breeding in providing material to CPCs for clean-up | • Identify breeders and other entities<br><br>• Face-to-face discussions between NCPN and industry in order to implement CPC | • Industry requires material goes through a CPC for clean-up<br>• Increased material from breeders delivered to CPC | • More diverse plant material<br><br>• High quality material delivered to the industry at a timely manner | • On-going through meetings, including face-to-face discussions |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.4** *(continued)* **Clean Plant Material Demand:** *Determine Industry Needs for Clean Plant Material.* | 4. <u>Efficient use of resources</u> | • List of foundation material that has not been used for a number of years<br>• Discussions with industry on the potential/value of retaining material | • Eliminate material from foundations; move to repositories, return to industry, etc.; that have minimal potential of meaningful/large scale propagation | • Better use of resources | • FY 2021 - On-going |

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.5 Clean Plant Program Education & Outreach:** *Facilitate the adoption of clean plants coming from clean plant centers by nurseries and growers through extension and outreach activities.* | 1. NCPN Education & Outreach Program Advancement and Resourcing: Review, re-orient, and fund the Education & Outreach group; including activities for the establishment of baseline data on educational material used, volume and trends in use of clean plants in the various NCPN crop groups, etc. | • Funding <br><br> • Tier II volunteers <br><br> • Information on current use of clean plant material across commodities | • Staffing: Hire a dedicated NCPN Education, Outreach, and Communications Director <br><br> • Purpose: Reconsider and re-craft the mission and the NCPN Education & Outreach initiative <br><br> • Materials: Rebrand NCPN material to appeal to focus groups/next generation of stakeholders Educational material <br><br> • Internet: Web-based; incl. YouTube and related new media | • Increased use: Increase use of clean material by 15%/year <br><br> • Baseline data: Information clean plant use trends | • Director hired by the end of FY2021 <br><br> • Ongoing – surveys, web trafficking, meetings |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.5 (continued) Clean Plant Program Education & Outreach:** *Facilitate the adoption of clean plants coming from clean plant centers by nurseries and growers through extension and outreach activities.* | 2. Education & Outreach Tools: Assess NCPN Education & Outreach tools, revise as necessary, and develop new ones. | • Funding<br>• Stakeholder testimonials<br>• Existing E/O material and other tools | • Library: Sustain NCPN 'Library' for extension/outreach materials; a place for material to be housed and available | • Materials: Material available on Education & Outreach website | On-going |
| | 3. Communications Planning: Review and revise the NCPN Communications Plan | • Initial NCPN Communications Plan<br>• Meetings to discuss options, analyze information and propose directions | • Revised NCPN Communications Plan; including a national plan and crop and other specific plans | • Information on audiences, techniques for communications, needed tools, and anticipated results | FY 2021 – Review and Assessment of Plans<br>FY 2021 – Implementation of final products |
| | 4. Industry Engagement: Engage industry representative through workshops/ organizations | • Funding<br>• Tier II volunteers | • Meetings: Face-to-face communication with industry | • Increased use: Increase use of clean material by 15%/year | On-going |

| NCPN Goal # 2 – Advancing Special Initiatives: *(continued)* |
|---|
| Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants |

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.5 *(continued)* Clean Plant Program Education & Outreach:** *Facilitate the adoption of clean plants coming from clean plant centers by nurseries and growers through extension and outreach activities.* | 5. Extension: Engage extension professionals and volunteers such as Master Gardeners in outreach. Need to heavily engage in 'millennial' education. | • Resources: Identify individuals and assist them in getting Farm Bill, incl. NCPN, and other sources of funding in order to fund Education/Outreach initiatives <br><br> • NCPN Communications Plan | • Staffing: Hire an NCPN E/O Director <br> • Availability: Develop strategies and resources to ensure that educational materials about its services and products are available for NCPN outreach <br> • Outreach: Dissemination of information – to include publication, webinar series, face-to-face workshops and growers meetings, trade shows, industry meetings, professional societies, podcasts, twitter, Instagram, FB etc. social media in general | • Audience: Reaching out to a wide audience of stakeholders <br><br> • Engage small nurseries that are not and will not be part of any certification schemes <br><br> • Coordination: Coordinated delivery of NCPN Education & Outreach strategies <br><br> • Awareness: Increased awareness of the value of using clean plants | • Director hired by the end of FY2021 |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.6 Economics:** *Assess the economic impact of the clean plant programs.* | • Economics: Assess economic impacts of production of clean plants with current and new studies. | • Establish an NCPN Economics Working Group<br><br>• Published studies<br><br>• Engage economists and CPC Focus on large CPC<br><br>• Funding for economic studies.<br><br>• Data: Obtain data from industry and clean plant centers<br><br>• Prioritization: Priority list for studies | • Studies: NCPN-funded peer-reviewed evidence of CPC economic impact in specialty crops | • CPC Value: Rigorous estimates of the economic value of clean plant centers<br>• Adoption: Stakeholders increased adoption of clean plants used based on cost/benefit analysis<br>• Publications: Peer-reviewed publications | • FY 2021 - on going |

**NCPN Goal # 2 – Advancing Special Initiatives:** *(continued)*
**Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.7 Quality Assurance and Quality Control:** *Establish formalized programs and processes for program Quality Coordination and Management.* | 1. Quality Working Group: Establish, charter, and implement a working group focusing on NCPN Quality Management across the network and at clean plant centers | • Volunteers<br><br>• Funding<br><br>• Specialists with expertise in Quality Management and Quality Control | • Group of Tier II/Industry representatives focused on quality standards | • Improved confidence in clean plant material | • FY 2021 - Working group established |
| | 2. Quality Standards: Establish NCPN standards for program and product quality. | • Review current CPC standards<br><br>• Study standards from related organizations; including entities such as Naktuinbouw, Euphresco, and others<br><br>• Identify improvements to current standards | • Improve on current and adoption of new standards | • Quality Managers at select clean plan centers<br>• Improved confidence in clean plant material | • FY2021 - on going |
| | 3. Quality Reviews and Assessments: Develop program and center review protocols, priorities, and conduct reviews | • Other accreditation systems: e.g. National Plant Diagnostic Network's (NPDN) STAR-D; ISO etc.<br><br>• Leaders/volunteers from NPDN; accredited labs<br><br>• Quality Control managers of Clean Plant Centers | • Reviews of CPCs QS to assess strengths and weaknesses<br>• Set priorities<br>• Improved protocols<br>• Successful audits | • Improved confidence in clean plant material | • FY2021 - ongoing |

| NCPN Goal # 2 – Advancing Special Initiatives: *(continued)* |
|---|
| **Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants** |

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.8 Scientific Information Development, Use, and Sharing:** *Develop agreement and establish procedures for internal and external data and information development and sharing.* | 1. Scientific Data and Information Working Group: Establish a team to assess NCPN scientific information needs, inventory data, and develop protocols for information management. Uses could include info useful to gov't regulators to help with decision-making. | • Information developed by researchers. <br> • Plant pathogen survey information <br> • Project funding | • Group of Tier II/Industry representatives focused on scientific data and information | • Improved confidence in clean plant material <br><br> • Support for rapid and accurate regulatory decision-making | • FY 2021 – NCPN funding support for the initiative <br> • FY 2021 – Team report on activities; accomplishments, outputs, outcomes, and roadmap forward |
| | 2: Information Data Systems: Develop a system to gather, manage, advance, and share scientific information and data. | • Identify the needs and the items that need to be shared <br><br> • Describe current systems in individual Clean Plant Centers | • New or improved current system for gathering, managing, advancing, and sharing scientific information and data for each group; not necessarily NCPN as a whole | • Increased transparency among CPCs. <br><br> • Overall increase in competence of centers <br><br> • Support for rapid and accurate regulatory decision-making | • FY 2020- on-going |

| NCPN Goal # 2 – Advancing Special Initiatives: *(continued)* | | | | | |
|---|---|---|---|---|---|
| **Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Timelines** |
| **2.8 (continued) Scientific Information Development, Use, and Sharing:** *Develop agreement and establish procedures for internal and external data and information development and sharing.* | 3. <u>NCPN Scientific Information – Supporting Regulatory Decision-Makers:</u> Develop protocols for sharing NCPN center developed scientific information with national and local governmental officials to support/inform regulatory decision-making. | • Identify current protocols | • New or improved protocols for sharing scientific information data with officials | • Improved understanding of scientific information on the part of officials. Fewer instances of misunderstandings | • FY 2022 |

| NCPN Goal # 2 – Advancing Special Initiatives: *(continued)* |||||||
| Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants |||||||
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.9** <br> **Interface with Nursery Clean Plant Programs:** *Facilitate communication among regulators, research scientists, industry, and centers to develop clean plant nursery programs to increase the use of clean plant material.* | 1. <u>Spokespersons:</u> Identify and develop a cadre of industry and NCPN Tier II members as spokespersons for each commodity | • Tier II; Experience, knowledge of Tier II members | • <u>Persons:</u> List of spokesperson *or* champions per commodity <br><br> • <u>Locations:</u> Good 'regional' representation <br><br> • <u>Numbers:</u> At least 2 spokespersons identified per commodity | • <u>Attendance:</u> Spokespersons attend a minimum of 2 meetings to present information on clean plants <br><br> • <u>Presentations:</u> Stakeholders and NCPN Tier II members participating in clean plant presentations to stakeholders | • Have spokespersons identified by end of FY 2021 with the list being reviewed and renewed annually |
| | 2. <u>Events:</u> Identify and prioritize the most appropriate meetings for spokespersons to attend | • Tier II: Experience, knowledge of Tier II members <br><br> • <u>Resources:</u> Funding for meetings <br><br> • <u>Persons:</u> Responsibility of the E/O Director or Professional Tier II Coordinators <br><br> • <u>Stakeholders:</u> Trade shows, educate stakeholders, attend meetings | • <u>Meetings:</u> Prioritized list of appropriate meetings to attend <br><br> • <u>Participation:</u> Attend and present at meetings | • <u>Delivery:</u> Enhanced opportunities to deliver a message that resonates with stakeholders <br><br> • <u>Message:</u> Success stories <br><br> • <u>Demand:</u> Build demand for use of clean plants <br><br> • <u>Benefits:</u> Engage non-compliant industry regarding the benefits of clean plants <br><br> • <u>Electronic:</u> More hits on the website <br><br> • <u>Industry Response:</u> Feedback from industry | • Prioritize events and get on agendas in FY 2021 <br> • Minimum of 2 industry meetings per year starting in 2021 |

| NCPN Goal # 2 – Advancing Special Initiatives: *(continued)* |
| Optimizing the adaptation and implementation of novel technologies and new ideas while increasing the awareness of the importance, availability, and use of clean plants |

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Timelines |
|---|---|---|---|---|---|
| **2.9 *(continued)* Interface with Nursery Clean Plant Programs:** *Facilitate communication among regulators, research scientists, industry, and centers to develop clean plant nursery programs to increase the use of clean plant material.* | 3. Team Coordination: Assist team led by state regulators and industry to:<br>• Identify the role NCPN can play in clean plant nursery programs<br>• Discuss the commodity needs and requirements for a clean plant nursery program.<br>• Put in place a framework for addressing overall clean plant nursery program questions and issues | • Governing Bodies: Experience, knowledge, participation of Tier II and other interested parties (State DOAs, Regulators, Industry)<br><br>• Resources: Funding for meetings, Farm bill funding<br><br>• States: State DOAs (Team Lead)<br><br>• Federal: USDA/APHIS<br><br>• Industry: Nursery Industry, Growers, Breeders, and others | • Membership of governing bodies: Tier II state regulators, industry members and with invites to subject experts for input regarding certain issues<br><br>• Procedures: Meet with State DOAs and other interested parties<br><br>• Procedures: Team makes recommendations and reviews certification standards (led by State? DOAs)<br><br>• Pathogen Lists: NCPN provides updates/information to State DOAs on targeted pathogens in support of certification<br><br>• Harmonization: Contribute to other teams in their efforts to harmonize the use of certification standards | • Interactions: Interaction with groups composed of regulators and industry members that discuss issues around certification.<br><br>• Communication: Contribute to improved real-time communication between parties.<br><br>• Message Harmonization: Incorporate NCPN material into certification schemes.<br><br>• Plant Movement: Freer movement of plant materials among the States<br><br>• Interstate Profits: Increased profits for nurseries that choose to ship across State lines<br><br>• Cultivar Access: Improved access for growers to new cultivars via movement of clean plants across state borders | • Team established in FY 2021 |

| NCPN Goal # 3 – Governance and Networking: Optimize Network Resources |||||| 
|---|---|---|---|---|---|
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Guidelines** |
| **3.1 NCPN Program Governance:** *Assess and ascertain NCPN Governance and Administration needs for FY 2021-2025.* | 1. NCPN National Leadership: Review NCPN national leadership structures and explore advanced models for FY 2021-2025 | • Tier I/II leadership<br><br>• Leadership of special initiatives committees such as Education/Outreach, Economics, Quality, and others | • Adjusted guidelines: Renewed Charter and Guidelines for NCPN national governance.<br>• Tier I Governing Board: Roles and duties reviewed, revisited, revised.<br>• Federal Coordinators: Roles and duties reviewed, revisited, revised. | • More versatile, efficient group<br><br>• Efficient, timely decision making | • FY 2022 |
| | 2. NCPN Tier II Specialty Crop Group Leadership and Administration: Review NCPN Tier II specialty crop leadership structures and explore advanced models for FY 2021-2025; propose adjustments. | • Tier I leadership<br><br>• Leadership of initiative committees such as Education/Outreach, Economics, Quality, and others | • Adjusted guidelines: Renewed Charter and Guidelines for NCPN national governance. | • More versatile, efficient group<br><br>• Efficient, timely decision making | • FY 2022 |
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| **NCPN Goal # 3 – Governance and Networking:** *(continued)* | | | | | |
| **Optimize Network Resources** | | | | | |
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
| **3.1** *(continued)* **NCPN Program Governance:** *Assess and ascertain NCPN Governance and Administration needs for FY 2021-2025.* | 3. <u>NCPN Dedicated Professionals Cadre:</u> Plan, develop, and implement a program of professionals dedicated to long and short term NCPN program administration; focusing on comprehensive program coordination, institutional memory and advocacy, and special projects advancement. | • Tier I/II leadership<br><br>• Funding | • Professional Cadre Plan: Developed and tested<br>• Institutional Type and Location: Ascertained and established | • Stability, flexibility; independent of USDA personnel assignments<br><br>• Future leadership invested in the success of NCPN | • FY- 2021; testing<br>• FY 2023: implementation |

**NCPN Goal # 3 – Governance and Networking:** *(continued)*
**Optimize Network Resources**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
|---|---|---|---|---|---|
| **3.2 Governing Bodies:** *Accommodate governance for new crops, including funded members and non-funded members.* | 1. New Crop Governing Bodies: Establish efficient processes to govern new, minor crops entering the Network | • Processes used in the incorporation of more recent crops such as Rose and Sweet Potato into NCPN | • Governing Bodies Established: New governing body structures established to manage new, including minor, crops in NCPN | • Efficient and appropriate governance for new, including minor, crops | • Template developed FY 2021 |
| | 2. New Crop Criteria: Establish, publish, and periodically review criteria under which new crops may enter the Network and under which existing crops may effectively continue with support | • Criteria derived from past NCPN Requests for Proposals<br>• List of prerequisites from Strategic Planning team discussions | • Criteria Established and Published: New crop criteria developed and a process established for their communication widely within the Network and with the public | • Parameters set under which new crops may enter the Network and under which existing crops may continue to receive NCPN support | • Criteria established and refined FY 2021 |

| NCPN Goal # 3 – Governance and Networking: *(continued)* | | | | | |
|---|---|---|---|---|---|
| Optimize Network Resources | | | | | |
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
| **3.3 NCPN Program Scope:** *Revisit and re-circumscribe the scope and parameters of the Network with regular reviews and updates.* | 1. <u>Program Analysis:</u> Analyze program purpose and needs to determine boundaries; revisit the analysis periodically<br><br>2. <u>Program Position:</u> Determine NCPN program place the grand scheme of related plant introduction/access paradigms<br><br>3. <u>Program Boundaries:</u> Establish, explain, and communicate program boundaries | • Analysis of program boundaries and opportunities as suggested by the NCPN Governing Board (Tier 1) and national program Coordinators<br>• Analysis by Tier 2 Governing bodies of program boundaries and opportunities | • <u>Analysis:</u> Conducted, assessed, and understood<br><br>• <u>Position:</u> Place of NCPN as a program well defined<br><br>• <u>Boundaries:</u> Understood and Communicated | • Clear internal and external understanding of critical role that NCPN plays and its relationship to allied initiatives. | • FY 2021 – Circumscription baseline set under the NCPN Strategic Plan FY 2021 – 2025<br><br>• FY 2021 – ongoing periodic analysis of opportunities and boundaries |

| NCPN Goal # 3 – Governance and Networking: *(continued)* | | | | | |
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| **Optimize Network Resources** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Guidelines** |
| **3.4** <br> **Clean Plant Specialty Crop Business Plans:** <br> *NCPN Specialty Crop Groups and Clean Plant Centers (CPCs) develop Business Plans to ensure for the long-term financial stability of specific crops and centers within the Network.* | 1. <u>Plan Templates:</u> Development of templates for use in the development of plans. Plans developed at various levels for various purposes | • <u>Center Collaboration:</u> CPCs to work with each other to exchange information on business plan development <br><br> • <u>Funding Plans:</u> Develop a funding Contingency plan (multiple levels/Network) <br><br> • <u>Center Resource Inventories:</u> Supply inventories for each center (human, infrastructure, funding (Financial statements, Fiscal contingency plans) plant material <br> • Feedback on plans from Tier I | • <u>Plan Templates:</u> Develop business plan templates for CPC business plans <br><br> • <u>Plan Focus:</u> The standardization of plans should be relative to Tier I and industry needs | • <u>Plans Developed:</u> CPC business plans developed, on file, and accessed annually. <br><br> • Strategic vision for center directors and the network membership (Tier I/II) <br><br> • Plans developed by NCN Tier 2 Governing Bodies for the collective direction of their crop under aegis of NCPN <br><br> • Informed work plans <br><br> • Maximize/optimize utilization of resources <br><br> • NCPN RFP to recommend plans in support of dedicated NCPN funding | • FY2021 – templates developed <br><br> • FY 2022 - Business plans to flow and be consistent across centers <br><br> • FY 2023 – Tier 2 Governing Bodies develop plans to the NCPN crop level <br><br> • FY 2023 - 100% of centers follow the new templates and have a business plan by 2024 because it is part of the RFP |

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| **NCPN Goal # 3 – Governance and Networking:** *(continued)* | | | | | |
| **Optimize Network Resources** | | | | | |
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
| **3.4 (continued) Clean Plant Specialty Crop Business Plans:** *NCPN Specialty Crop Groups and Clean Plant Centers (CPCs) develop Business Plans to ensure for the long-term financial stability of specific crops and centers within the Network.* | 2. <u>Evaluations and Reviews:</u> Evaluate Center Business Plans and conduct program reviews | • <u>Plan Reviews:</u> CPC institution, Tier I/II, and Industry (advisory committees of individual CPCs) reviews business plans and provides feedback | • Feedback on plans from review panels listed in inputs <br><br> • <u>CPC Plan Alignments:</u> Align business plans to science-based industry needs | • Strategic direction for center directors and the network membership (Tier I/II) <br><br> • Sustainability of the center <br><br> • Facilitating dialogue with stakeholders <br><br> • Improve collaboration and coordination among centers, maximizing resources | • FY 2023 – Plans reviewed and feedback provided <br><br> • FY 2024 – Program reviews planned, organized, and initiated |

| NCPN Goal # 3 – Governance and Networking: *(continued)* | | | | | |
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| **Optimize Network Resources** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Guidelines** |
| **3.5** **NCPN Plans Harmonization Strategy:** *In developing and implementing national, crop-specific, and center-oriented plans, as well as special topics initiatives, NCPN managers will strive to coordinate and harmonize all efforts. This will include the creation and coordination of technical proposals and other plans.* | 1. <u>Unified Proposal per commodity:</u> Develop unified technical proposals and simplified work plans | • Work Plans submitted by CPC's and others for NCPN program support<br>• NCPN pre-proposal review team recommendations<br>• NCPN-Mgmt. Team<br>• Tier 2 Membership<br>• NCPN RFA/RFP<br>• Industry needs | • Written proposal completed through coordination of Tier II with their CPCs<br>• Annual proposals for NCPN support harmonized among CPC's within a crop area | • Streamlined proposal based on industry needs<br>• Less duplication of efforts and resources and enhanced sustainability of the network | FY 2021 |
| | 2. <u>Special Initiatives Plans:</u> Coordinated among special initiatives and with CPC's | • Work Plans submitted by CPC's and others for NCPN program support | • Annual proposals for NCPN support harmonized with CPC's and with other special initiatives areas | • Coordinated initiative requests for support, ensuring for complete coverage with minimum gaps in needs of services to stakeholders | FY 2021 |
| | 3. <u>Center Specific Plans:</u> Coordinated among CPC's within the crop | • Business Plans developed by CPC's | • CPC Business Plans coordinated within a crop area | • CPC coordination, ensuring for complete coverage of stakeholder needs regardless of geographical location | FY 2023 |
| | 4. <u>Tier 2 Crop Plans:</u> Coordinated among the crops | • Business Plans developed by CPC's<br><br>• Strategic Plans developed by other Tier 2 specialty crop governing bodies | • Tier 2 Strategic Plans developed and harmonized among crops in NCPN | • Maximization of use of NCPN resources to points of most critical need<br>• Strengthening NCPN as a Network | FY 2023 |
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| NCPN Goal # 3 – Governance and Networking: *(continued)* | | | | | |
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| **Optimize Network Resources** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Guidelines** |
| **3.5 (continued) NCPN Plans Harmonization Strategy:** *In developing and implementing national, crop-specific, and center-oriented plans, as well as special topics initiatives, NCPN managers will strive to coordinate and harmonize all efforts. This will include the creation and coordination of technical proposals and other plans.* | 5. NCPN Strategic Plan: Coordinated with other plans at various NCPN levels | • Strategic Plans developed by other Tier 2 specialty crop governing bodies<br><br>• Existing NCPN Strategic Plan | • Advances to the Networks Strategic Plan as informed by various aspects of the base | • NCPN Strategic Plan informed by needs of the base | • FY 2023 |

| NCPN Goal # 3 – Governance and Networking: *(continued)* | | | | | |
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| **Optimize Network Resources** | | | | | |
| **Objective** | **Action Items** | **Inputs** | **Outputs** | **Outcomes** | **Metrics and Guidelines** |
| **3.6 Funding Stability:** *Identify complementary sources of funding to support and/or enhance clean plant programs.* | 1. <u>Funding Source Analysis:</u> Analyze funding sources and opportunities that are available outside NCPN including the establishment of assessments and/or endowments | • Identification of commodity-based resources, eligible capacity grants and other funding sources<br><br>• Identification of potential donors<br><br>• Legislative Support from State Dept. of Agriculture and Universities<br><br>• Support from grower associations<br><br>• Mergers between companion programs<br><br>• Fee for services paradigms | • CPC are successful in acquisition of non-NCPN funding | • Less dependence on a single source of funding<br><br>• Able to run operations if NCPN funding is diminished | • FY 2021 – analysis of options<br><br>• CPC funding reliance from NCPN drops to 50% of the FY2021 level by FY 2025 |

**NCPN Goal # 3 – Governance and Networking:** *(continued)*
**Optimize Network Resources**

| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
|---|---|---|---|---|---|
| **3.7 Succession Planning:** *Develop Succession plan resources; people, plants, and infrastructure.* | 1. Critical Position Identification: Identify key critical positions (directors, technical leads, Network coordinators and/or Management Team) that are essential to the network | • Knowledge of retirement dates<br>• Critical KSA – knowledge, skills, abilities determination: Identify the skills, knowledge and leadership qualities needed for those key critical positions<br>• Available funding for replacements<br>• NCPN funds used as bridge funding until identification of appropriate replacements<br>• Buy-in from leadership team (Center Directors, industry, etc.) | • Knowledge/skills continuity<br><br>• Center Succession Planning incorporated into the Center business plans<br><br>• Professional cadre; including coordinators and others | • CPC and Network stability<br><br>• Introduction of novel ideas with the new expertise joining the Network<br><br>• Development, evolution of NCPN as an organization<br><br>• Professional coordination Team | • FY 2021, on-going |
| | 2. Industry Support in Succession Planning: Identify an industry support group for coordinators and CPC Director positions | • Industry leadership buy-in<br>• Tier 2<br>• Commodity groups | • New hires align with industry needs | • Focused support based on industry needs | • Initiate FY 2021, on-going |
| | 3. Network Information Database: Create an archive of essential, core, critical Network documents and other materials | Archives:<br>• Centers<br>• Tier 1,Tier 2<br>• Coordinators (Federal/commodity)<br>• Education/Outreach team<br>• Special initiatives - other | • Online database | • Fewer knowledge gaps<br><br>• Historical perspective<br><br>• Institutional knowledge | • Initiate FY 2021, on-going |

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| **NCPN Goal # 3 – Governance and Networking:** *(continued)* **Optimize Network Resources** | | | | | |
| Objective | Action Items | Inputs | Outputs | Outcomes | Metrics and Guidelines |
| **3.8 Program Networking**: *Governance bodies should meet regularly with stakeholders and networking groups for continuing collaboration and to engage in critical discussions around pertinent network and commodity topics.* | 1. Tier I – Conduct an annual proposal review meeting and a mid-year meeting. Additional meetings based on need to address network issues or concerns. Conduct regularly scheduled video and teleconferences to keep members informed and to address critical and emerging issues. | • Critical issues from NCPN Federal and other Coordinators, CPC Directors, Industry and State Regulators. <br><br>• Proposals from Cooperators to inform Proposal review meeting. | • Meeting reports, minutes, and associated action items. | • Identification of action items, champions, and associated timelines for activity. | • Initiate FY 2021, on-going |
| | 2. Tier II - Conduct a minimum of one annual meeting per year to share/discuss NCPN related matters and to advance issues or concerns. Conduct regularly scheduled video and teleconferences to keep members informed and to address critical and emerging issues. | • Critical issues from NCPN Federal and other Coordinators, CPC Directors, Industry and State Regulators. <br><br>• Proposals from Cooperators to inform Proposal review meeting | • Meeting reports, minutes, and associated action items. | • Identification of action items, champions, and associated timelines for activity. | • Initiate FY 2021, on-going |
| | 3. Cross network Collaboration – Coordinate and meet as needed across Tier bodies and for special initiatives. | • Critical and emerging issues as identified by participants. | • Meeting reports, minutes, and associated action items. | • Identification of action items, champions, and associated timelines for activity. | • Initiate FY 2021, on-going |
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## Document History

| Document Date | Description of Changes | Additional Notes (as needed) |
|---|---|---|
| 2007-05-30 | Original NCPN Strategic Plan created | |
| 2020-06-22 | New NCPN Strategic Plan developed and issued in draft | The original Strategic Plan had served NCPN for 13 years. Goals and Objectives needed to be revisited, renewed, and reissued |
| 2021-02-26 | Reformatted for visual consistency and ease of navigation; corrected several errors in text | |
| 2021-03-12 | Accepted revisions of 2021-02-26. New version of the NCPN Strategic Plan issued on 2021-03-12 | Document split into 2 documents; the Strategic Plan proper and the Appendix |
| 2021-03-28 | Separated into 2 documents and revised Appendix footer to reflect unique title of that section | Completion of above change |
| 2021-06-07 | USDA logo applied to header of 1st page of Strategic Plan and 1st page of Appendix; contact information updated | |