



# CBST updates in SPAR

## ITAC Meeting

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Forest Improvement and Research Management Branch



## A brief look at how CBST works in SPAR

- Suitable Seed/Veg Lot Search using Climate Based Seed Transfer
- Seedlot Detail and CBST screens
- SeedMap showing CBST Area of Use
- Where does the data in SPAR for CBST come from?
- Seedlot Reports and Extracts show CBST information
- Seedlot Registration - Class B seedlots (some lots need to have BEC variant resolved to a BECv10 variant)
- Seedling Request – Lot Selection screen - lists suitable lots for both GBST and CBST
- SPAR maintenance and possible changes in SPAR



## Suitable Seed/Vegetative Lot Search Climate Based Seed Transfer

Lot Type:	<input type="text" value="Both"/>	Active/Expired:	<input type="text" value="Active Only"/>	*				
Species:	<input type="text" value="FDI"/>	*						
Latitude:	<input type="text"/>	Longitude	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Default BEC"/>		
BGC Zone:	<input type="text" value="ICH"/>	*	BGC Subzone:	<input type="text" value="wk"/>	*	Variant:	<input type="text" value="1"/>	<input type="button" value="SeedMap"/>

- Required fields – Species and BGC zone/subzone/variant. Alternately the Latitude and Longitude fields can be entered, then click on Default BEC to fill in fields.

Other fields are additional filters that can be used, eg Owner Agency.

Note: the Specific Lot(s) filter does not work for CBST searches.



## Suitable Seedlot Search Results - CBST

Lot No.	Genetic Class & Worth	Germ. %	C/P	Agency	BEC	Orchard No. / Location	Coll. / Prod. Year	Reserve Trees (000's)	Surplus Trees (000's)	DT	CBST
63690	A GVO+34	96	C	BCTS 00	ICHmw2	324 - BAILEY	2016	121.3	0	DT	CBST
63690	A GVO+34	96	C	MOF 20	ICHmw2	324 - BAILEY	2016	0	36.3	DT	CBST
62408	A GVO+34	90	P	TOLKO 01	ICHmw2	324 - BAILEY	2015	6.6	0	DT	CBST
63586	A GVO+34	89	C	BCTS 00	ICHmw2	324 - BAILEY	2015	34.5	0	DT	CBST
63586	A GVO+34	89	P	TOLKO 01	ICHmw2	324 - BAILEY	2015	1.6	0	DT	CBST
63535	A GVO+34	84	C	BCTS 00	ICHmw2	324 - BAILEY	2014	0	3.5	DT	CBST
63377	A GVO+33	82	C	BCTS 00	ICHmw2	324 - BAILEY	2012	0	3.1	DT	CBST
05458	B	96	P	IFP 42	ICHmw2	STEVENS ACCESS ROAD	1983	27.1	0	DT	CBST
05458	B	98	P	IFP 43	ICHmw2	STEVENS ACCESS ROAD	1983	7.4	0	DT	CBST
47977	B	96	P	LPCAN 05	ICHwk1	EAGLE CREEK	2002	328.2	0	DT	CBST
47978	B	96	P	LPCAN 05	ICHwk1	CRAZY / EAGLE CREEKS	2002	235.8	0	DT	CBST
47979	B	96	P	LPCAN 05	ICHwk1	EAGLE CREEK	2002	326	0	DT	CBST
53888	B	96	C	BCTS 00	ICHmw4	MID SLOPE	2015	572.9	0	DT	CBST
53888	B	96	P	IFP 43	ICHmw4	MID SLOPE	2015	518.7	0	DT	CBST
53888	B	96	P	VAAAGEN 00	ICHmw4	MID SLOPE	2015	9.9	0	DT	CBST

Use the **DT** button to view Seedlot Detail screen and **CBST** button to view a list of BEC variants where a seedlot can be deployed.



## Seedlot Detail screen

Seedlot Number:

**Lot Details** | CBST | Owners | Tests | Commitments | Transactions | Heritage

Seedlot Number:	63690	Registered:	Yes - 2016-12-19 - Active
Species:	FDI - interior Douglas-fir		
Genetic Class/Worth	A GVO+34		
Collection Year:	2016		

**Source Information**

Orchard No:	324 - BAILEY		
Tested Parent Trees:	Yes	Heritage:	No
BGC Zone/Subzone/Variant:	ICH mv 2	BEC Version:	10

**Area of Use**

Seed Planning Zone(s):	NE QLN	<input type="button" value="SeedMap"/>
Elevation Range: Min-Max (m)	1000 - 1800	
Latitude Range: Min-Max	No Limit	
Area of Use Comment:		

**Quantity and Test Information**

Germination (%):	96	Peak Value:	83/ 9
Seeds per Gram:	83	Seedlings per Gram:	38
	<b>Potential Trees (000's):</b>	<b>Grams:</b>	
Reserved Available:	121.3	3,175	
Surplus Available:	38.3	1,002	
Total Available:	159.6	4,177	
Reserved Committed:	100.2	2,624	
Surplus Committed:	0.0	0	
Total Committed:	100.2	2,624	
Total Quantity:	259.8	6,801	
Agency:	Multiple Owners		



## Genetic Traits and Breeding Values

Genetic Trait	Description	Species to have codes initially	Old GW Codes*
AD	Deer browse	Cw	R
DFS	Dothistroma needle blight	Pli	
DFU	Cedar leaf blight	Cw	
DFW	Swiss needle cast	Fdc	
DSB	White pine blister rust	Pw	R/M**
DSC	Comandra blister rust	Pli	R
DSG	Western gall rust	Pli	R
GVO	volume growth	Cw, Dr, Fdc, Fdi, Hw, Lw, Pli, Sx, Yc	G
IWS	White pine terminal weevil	Sx	R
WDU	durability	Cw	
WVE	wood velocity measures	Fdc	
WWD	wood density	Fdc	D

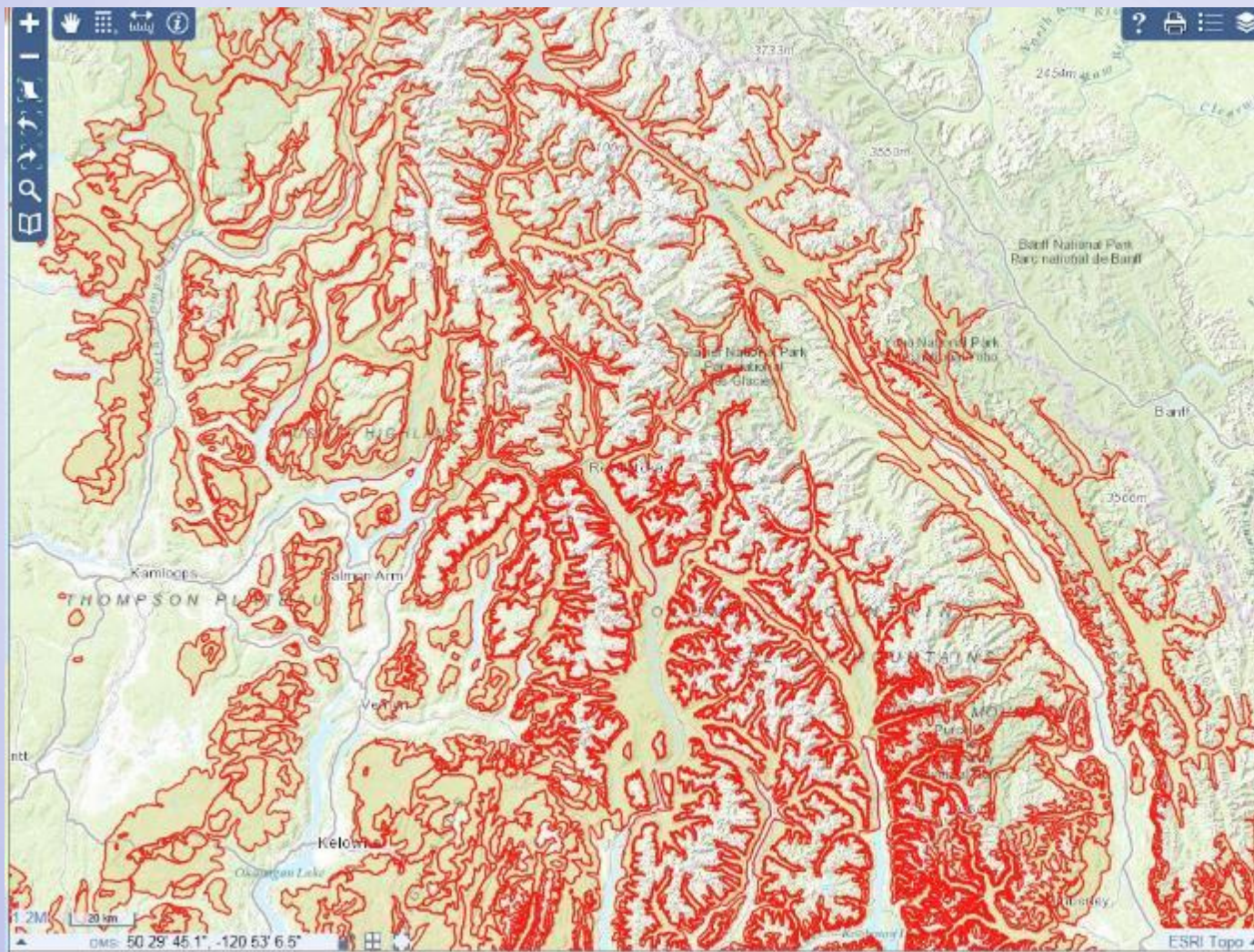


## Seedlot CBST screen - deployment BEC variants

CBST	Owners	Tests	Commitments	Transactions	Heritage	
BEC zone			Subzone			Variant
ESSF			dc			1
ESSF			dc			2
ESSF			dc			3
ESSF			dk			1
ESSF			mh			
ESSF			mw			1
ESSF			mw			2
ESSF			wh			1
ESSF			wh			2
ESSF			wh			3
ESSF			wm			1
ESSF			wm			2
ESSF			wm			4
ESSF			xc			1
ESSF			xc			2
ICH			dm			
ICH			mk			1
ICH			mk			2
ICH			mk			4
ICH			mm			
ICH			mw			1
ICH			mw			2
ICH			mw			3
ICH			mw			4
ICH			mw			5
ICH			vk			1
ICH			wk			1
MS			dc			1
MS			dc			3



# Seedlot CBST screen



## CBST Area of Use Tool

List of Biogeoclimatic Zone/Subzone/Variants  
where the Seedlot or Vegetative Lot can be  
planted

(\*) Species may not be suitable in this BEC unit

Seedlot Number: 63690

BEC Zone

ESSFdc1

ESSFdc2

ESSFdc3

ESSFdk1

ESSFmh

ESSFmw1

ESSFmw2

ESSFwh1

ESSFwh2

ESSFwh3

ESSFwm1

ESSFwm2

ESSFwm4

ESSFxc1

ESSFxc2

ICHdm

ICHmk1

ICHmk2

ICHmk4

ICHmm

ICHmw1

ICHmw2

ICHmw3

ICHmw4

ICHmw5

ICHvk1

ICHvk1

MSdc1

MSdc3

MSdk1

MSdk2

MSem1

MSom2

MSom3

MSmw1

MSmw2

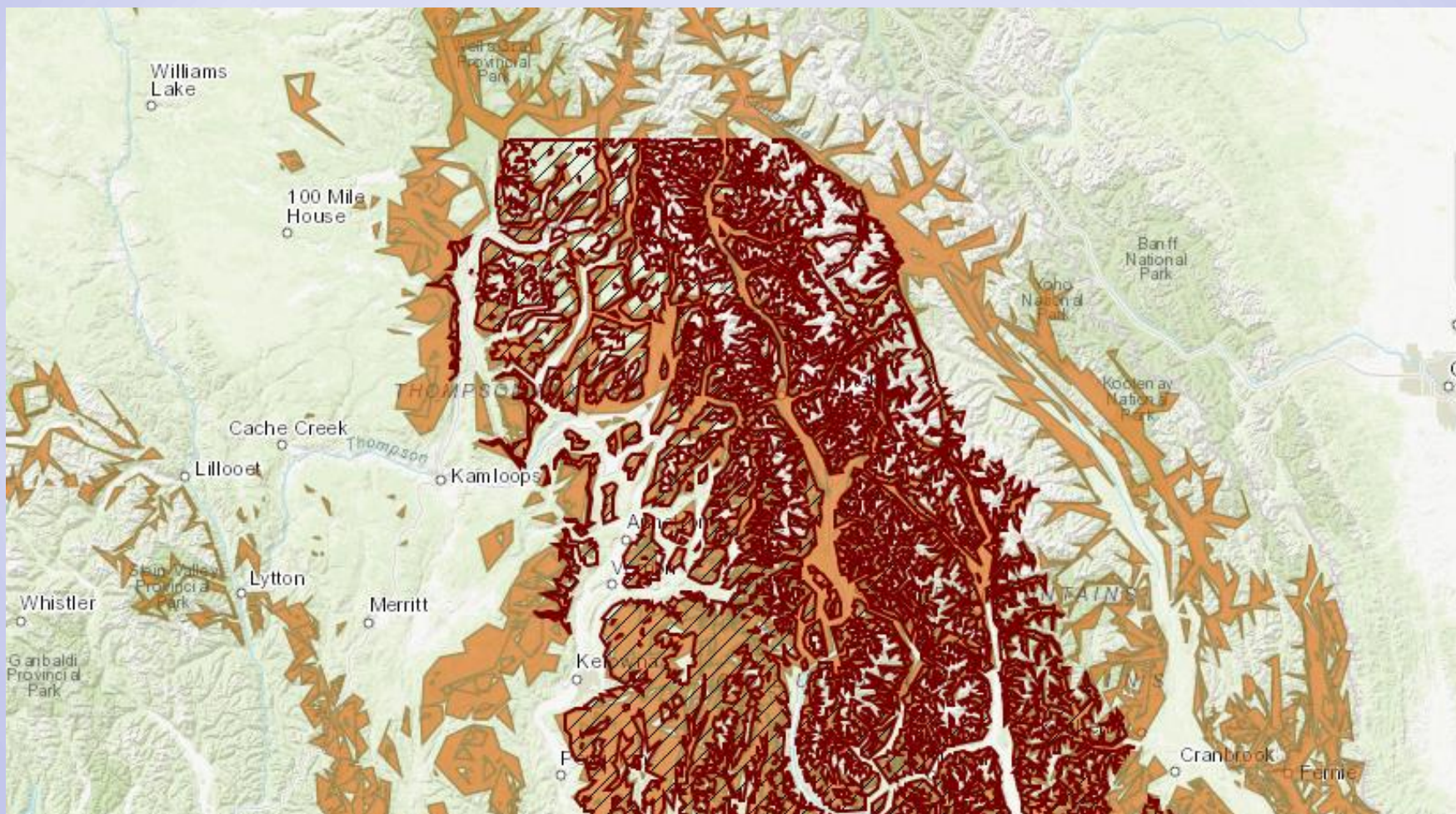
MSdk1

SBSmc1





## Forsite CBST Seedlot Tool





## Where does this data come from ...

Species:  \*  
 Site BEC Zone:  \*    BEC Subzone:  \*    Variant:   
 Seedlot BEC Zone:     BEC Subzone:     Variant:

5 rows returned

Species	Site BEC zone	Subzone	Variant	Seedlot BEC zone	Subzone	Variant	Height Pred.	Effective Date	Expiry Date		
<input type="text" value="FDI"/> * ▼ *	<input type="text" value="ich"/> *	<input type="text" value="mW"/> *	<input type="text" value="1"/>	<input type="text" value="ich"/> *	<input type="text" value="mW"/> *	<input type="text" value="2"/>	<input type="text" value="0.9918"/> *	<input type="text" value="2018-01-01"/> *	<input type="text" value="2033-12-31"/> *	<input type="button" value="Save"/>	<input type="button" value="Cancel"/>
FDI	ICH	mW	1	ICH	mW	2	0.9918	2018-01-01	2033-12-31	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
FDI	ICH	mW	2	ICH	mW	2	0.9846	2018-01-01	2033-12-31	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
FDI	ICH	mW	3	ICH	mW	2	0.9843	2018-01-01	2033-12-31	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
FDI	ICH	mW	4	ICH	mW	2	0.9871	2018-01-01	2033-12-31	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
FDI	ICH	mW	5	ICH	mW	2	0.9941	2018-01-01	2033-12-31	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

Data calculated by Greg O'Neill and entered in SPAR



## Seedlot Reports

- Seedlot Listing Report, Lot Detail Reports
- Print List reports from:
  - Suitable Seed/Veg lot search for GBST
  - Suitable Seed/Veg lot search for CBST
  - Lot Search
- Extracts
  - Seedlot Extract
  - Seedlot Extract for CBST



## New Cone Collection Standards

- New requirements came into effect August 6, 2018
- Seed now required to be collected from a single BEC variant (and seed collection area to be mapped in SeedMap).

### Why?

- Maintain identity of seed source for future transfer limits
- Create a “CBST area of use” (based on BEC variants)
- Reduce the likelihood of increasing inventories that can not be used after the CBST transition period.



## Class B Seedlots - BEC variants

- CBST data in SPAR is for BEC version 10. We will update to BECv11 in the future, likely when BECv12 is released.
- There are still Class B seedlots that do not have a current BEC variant.
- Seed Owners reviewed their Class B seedlots in 2018 and they were updated in SPAR
- Some still need to be updated



## Seedling Request

- “Subject To” codes for FRPA and CBST
- BEC to the subzone/variant now mandatory
- Lot Selection List will display lots suitable under FRPA-GBST and CBST.



## Seedling Request Entry

**Planting Site**

Species: FDI-interior Douglas-fir \*  
Elevation Min: 1000 \* Elevation Max: 1005 \*  
Latitude: 50° 52' 00" \* Longitude: 118° 51' 00" \*   
Seed Planning Zone A: NE-Nelson  
Seed Planning Zone B: SA-Shuswap Adams \*  
Geographic Area:   
Biogeoclimatic Zone: ICH \* Subzone: mw \* Variant: 2



# Ministry of Forests, Lands, Natural Resource Operations and Rural Development

## Seedling Request – Lot Selections

<input type="radio"/>		63586 A GVO+34	89	BCTS	00	ICHmw2	1000	1800	324 - BAILEY	2015 R	12.4	TG	SR	DT
										S	0			
<input type="radio"/>	C	63586 A GVO+34	89	BCTS	00	ICHmw2	1000	1800	324 - BAILEY	2015 R	12.4	TG	SR	DT
										S	0			
<input type="radio"/>		63586 A GVO+34	89	TOLKO	01	ICHmw2	1000	1800	324 - BAILEY	2015 R	1.6	TG	SR	DT
										S	0			
<input type="radio"/>	C	63586 A GVO+34	89	TOLKO	01	ICHmw2	1000	1800	324 - BAILEY	2015 R	1.6	TG	SR	DT
										S	0			
<input type="radio"/>		63774 A GVO+34	89	MOF	20	ICHmw2	1000	1800	324 - BAILEY	2018 R	2000.0	TG	SR	DT
										S	1287.7			
<input type="radio"/>	C	63774 A GVO+34	89	MOF	20	ICHmw2	1000	1800	324 - BAILEY	2018 R	2000.0	TG	SR	DT
										S	1287.7			
<input type="radio"/>		63182 A GVO+27	98	MOF	27	ICHdw1	400	1200	321 - GRANDVIEW	2009 R	9.8	TG	SR	DT
										S	0			
<input type="radio"/>	C	63182 A GVO+27	98	MOF	27	ICHdw1	400	1200	321 - GRANDVIEW	2009 R	9.8	TG	SR	DT
										S	0			
<input type="radio"/>		63182 A GVO+27	98	CANOE	00	ICHdw1	400	1200	321 - GRANDVIEW	2009 R	49.9	TG	SR	DT
										S	0			
<input type="radio"/>	C	63182 A GVO+27	98	CANOE	00	ICHdw1	400	1200	321 - GRANDVIEW	2009 R	49.9	TG	SR	DT
										S	0			





## SPAR Maintenance - ongoing

- New data - Breeding values for parent trees added as provided by genetics section
- Correct bugs eg. missing layers in SeedMap
- New BEC spatial data and table specifically for SPAR to avoid timing conflicts with ecologists
- New report to list which BEC variants seed can be sourced from for a planting site
- **SPAR Users – send us emails when you find bugs or have suggestions for improvement**



## Connections with other systems

- PlantWizard (JRP)
- Phoenix (DR Systems)
- RESULTS
- Nursery Shipping and Admin system (BCTS Seedling Services)
- Forsite CBST Seedlot Selection Tool



## SPAR Changes in the next few years ....

- Change to Sowing Rules  
from the legacy calculations of cavities per  
block, nursery handling factor, over sow amount  
to a simpler system of Seeds per  
Seedling
- Change from Seed Planning Units and  
Seed Planning Zones  
to units or zones used for breeding and  
orchards with CBST



# Website, Online Help, Tutorials, Links

## Seed Planning & Registry Application (SPAR)

SPAR is a web-based information management system. It provides clients with direct online access to

- A Provincial Registry of Forest Tree Seed and
- A comprehensive seedling request system for meeting annual reforestation needs.

The application consists of the following main components:

- **Tree seed and vegetative lot registry**  
Enter and maintain seed and vegetative lot information and queries.
- **Requests**  
Seedling requests, direct seed withdrawals, cone and seed processing, testing, and other services. Requests are entered through SPAR and downloaded to the Cone and Seed Processing System (CONSEP) at the Tree Seed Centre. SPAR guides the user through selection of a suitable lot in a request using the transfer rules found in the *Chief Forester's Standards for Seed Use*.
- **Reporting**  
Generate SPAR reports in pdf format via submission screens. Data extracts can also be produced in MS Excel (csv) format.

**SPAR Training Tools**

## SPAR & Climate Based Seed Transfer

SPAR Release 6.22 - February 22, 2018 - incorporates Climate Based Seed Transfer in to SPAR. For more information, read [SPAR Release 6.22](#)

SPAR Release 6.23 - May 29, 2018 - introduces new Genetic Worth Codes.

For more information, read [SPAR Release 6.23](#) and [GW Code Changes Bulletin - July 2018](#)

## Access SPAR

[Open the SPAR application](#)



## Questions when you are using SPAR

Contact: Seed Resource Specialists

Forest Improvement and Research Management Branch

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