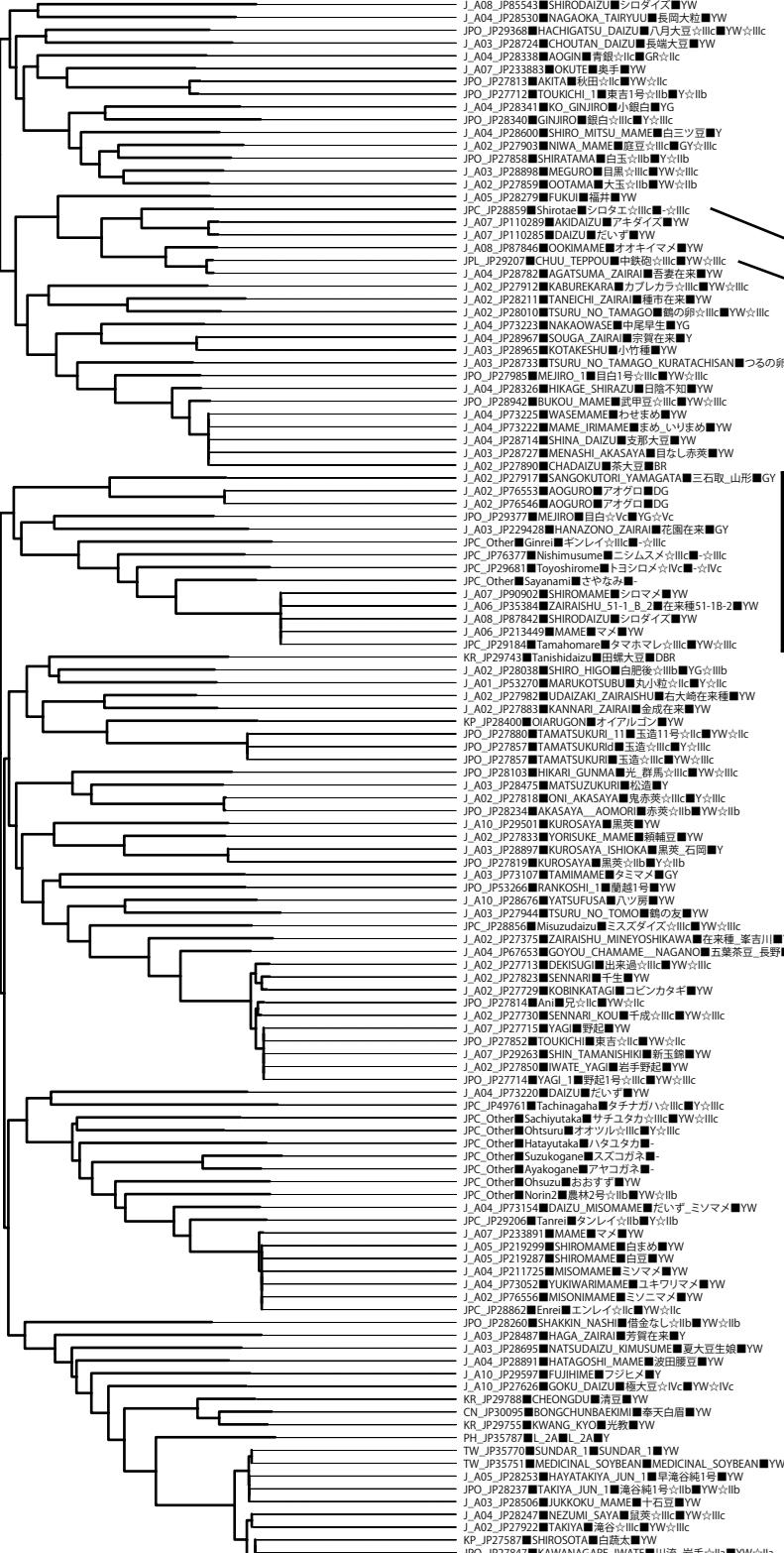


### **Supplemental Fig. 3.**

A detailed neighbor-joining phylogenetic tree of 1,603 accessions, Japanese ( $n=998$ ) and exotic cultivated soybeans ( $n=341$ ), Japanese ( $n=74$ ) and exotic wild soybeans ( $n=190$ ), based on the allele sharing distance. The accession name consisted of their origin, accession number, accession name, seed coat color and ecological types and those partitioned by the mark “■”. Numbers with JP and PI indicate that NIAS Genebank and USDA germplasm plant introduction number, respectively. Seed coat color were classified as BK, Black; BKBKMottle, Black with brown mottle; BR, Brown; BRBKMottle, Brown with black mottle; BRBKSaddle, Brown with black saddle; DBR, Dark brown; DG, Dark green; GR, Green; GRBKSaddle, Green with black saddle; GRBRSaddle, Green with brown saddle; GY, Greenish yellow; GYBKSaddle, Greenish yellow with black saddle; GYBRSaddle, Greenish yellow with brown saddle; GYDBRSaddle, Greenish yellow with dark brown saddle; GYGRSaddle, Greenish yellow with black mottle; RB, Reddish brown; YBR, Light brown; YG, Yellowish green; Y, Yellow; YW, Yellowish white; YWBKMottle, Yellowish white with black mottle; YWBKSaddle, Yellowish white with black saddle; YWBRSSaddle, Yellowish white with dark brown saddle; YWDBRSaddle, Yellowish white with dark brown saddle. The letters and numeric characters in square bracket of the legend for each cluster are phenotype information followed by the representative ecological types; DF, Days to flowering; FH, Period from first flowering to start harvest; PH, plant height; SW, 100 seed weight; seed coat color.

# Japanese soybean cluster



J1a: A2-A4, A7-A8  
regions [IIb-IIIc, DF52(5),  
FH74(7), PH72(16), SW32(6),  
Yellow white seed]

## Shirotae Chuutepou

## J1b: A2-A3 regions

[IIIc-Vc, DF51(10), FH79(6), PH63(20)  
SW33(6), Yellow white seed]  
Tamahomare, Ginrei, Sayanami, Toyoshirome,  
Nihsimusume

J1c: A2-A4 regions  
[IIb-IIIc, DF47(4), FH68(7),  
PH64(16), SW31(5),  
Yellow white seed]

# Misuzudaizu

J1d: A2-A5, A10 regions  
[IIb-IIIc, DF46(4), FH62(8), PH55(17),  
SW29(7), Yellow white seed]  
Enrei, Tachinagaha, Sachiyutaka,  
Hatayutaka, Ohsuzu, Ootsuru,  
Ayakogane, Suzukogane,  
Tanrei, Norin2

# J2: A2-A5 regions

[IIa-IIIc, DF49(6), FH73(7),  
PH61(16), SW39(8), Green seed]

Akishirome

→ Kivomidori

Kiyomidori  
Tamamasari

J3a: A2-A5 regions  
[IIa-IIIc, DF42(3), FH54(4),  
PH51(15), SW28(4),  
Yellow white seed]

J3b: A2 region [IIb-IIIb,  
DF46(5), FH67(3), PH50(12),  
SW21(9), Colored seed]

J3c: A1-A2 regions  
[Ia-IIIc, DF40(5), FH61(9), PH48(12),  
SW26(3), Yellow white seed]

Narrow leaflets  
Tokachinagaha

J3d: A1 regions  
[Ia-Ib, DF33(3), FH54(5), PH41(9),  
SW31(3), Yellow white seed]

Yukihamare, Tokachikuro, Toyomusume,  
Hayahikari, Kitamusume, Toyohomare,  
Toyokomachi, Wasehadaka, Kariyutaka

J3e: A1-A2 regions  
[Ib-IIc, DF36(4), FH62(9), PH39  
(13), SW33(10), Colored seed]

J3f: A2, A3, A6  
[IIa-IIc, DF42(4), FH60(10), PH51  
(14), SW24(6), Yellow white seed]  
Ryuhou, Suzuyutaka, Suzukari,  
Wasesuzunari, Okushirome,  
Fukushirome, Tachiutaka,  
Godenshirazu

Wasesuzunari, Okushirome,  
Fukushirome, Tachiutaka,  
Gedenshirazu

J3g: A2-A5 regions  
[IIa-IIIc, DF47(6), FH57(8), PH56(13),  
SW20(5), Yellow white seed]

Glabrous pubescent soybean

J3h: A3,A10-A11  
regions  
[Ib-IIa, DF44(4), FH47(4),  
PH50 (11), SW18(3),  
Yellow white seed]

J4: A2-A9 regions  
[IIa-Vc, DF53(8), FH72(8),  
PH73(22), SW34(6),  
Yellow white seed]

Nakasennari

Hakkou

## Hakkou

**J5a: A4-A8 regions**  
 [IIb-Vc, DF52(9), FH69(6),  
 PH69(15), SW28(5),  
 Yellow white seed]  
 Akisengoku

**J5b: A3-A10 regions**  
 [IIb-IVc, DF57(6), FH74(8),  
 PH80(14), SW32(5), Colored seed]

**J5c: A2, A4, A6 regions**  
 [IIIc, DF52(7), FH80(4), PH81(43),  
 SW45(10), Colored seed]

**J5d: A2-A4 regions**  
 [Ib-IIIc, DF44(4), FH66(10),  
 PH55(11), SW42(10), Colored seed]

Miyagishirome

Five leaves soybean

Iwaikuro

**J5e: A2-A4 regions**  
 [IIIc, DF49(8), FH76(8),  
 PH72(19), SW41(7),  
 Flat colored seed  
 (Green cotyledon)]

Saddle pattern seed soybean

-Saddle pattern seed soybean

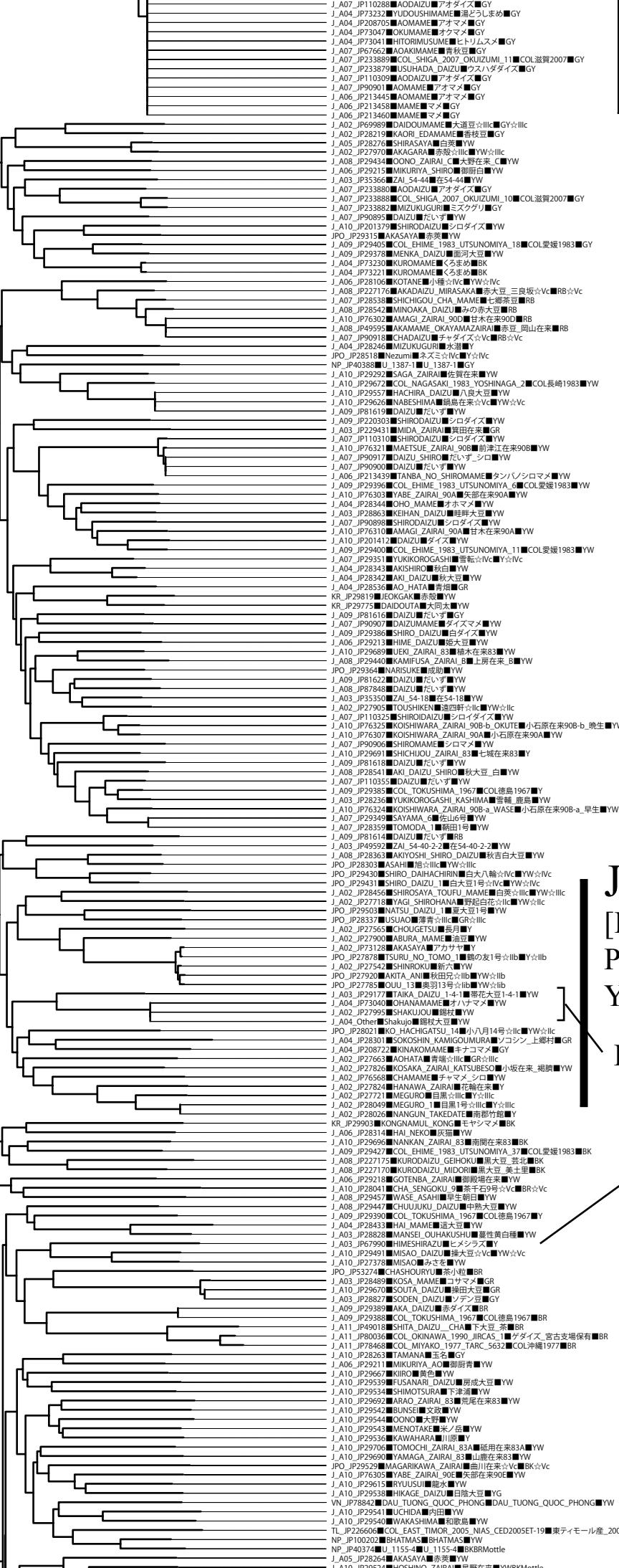
## J5f: A2-A10 regions [IVc, DF58(6), FH80(7), PH89(18), SW50(13), Black seed]

Kurodamaru

— Shintanbakuro

— Hyoukei kuro3

J5g: A2-A10 regions  
[DF55(7), FH79(5), PH80(19),  
SW42(7), Green seed  
(Green cotyledon)]



J5h: A2-A10 regions  
[IIIc-Vc, DF61(6), FH75(6),  
PH93(33), SW39(9),  
Yellow white seed ]

J6: A2-A4 regions  
[IIb-IVc, DF52(8), FH67(8),  
PH69(21), SW27(5),  
Yellow white seed]

## Fasciated soybean

# Himeshirazu

J7: A3-A4, A8-A10  
regions [Vc, DF76(22),  
FH70(6), PH141(68),  
SW15(7), Colored seed]

J8: A6-A7, A9-A10  
regions  
[IVc-Vc, DF67(7), FH74(5),  
PH113(57), SW28(6),  
Yellow white seed]

[PH113(57), SW28(6),  
Yellow white seed]

Fukuyutaka, Akiyoshi,  
Hougyoku, Murayutaka,  
Erusuta

# Exotic soybean cluster

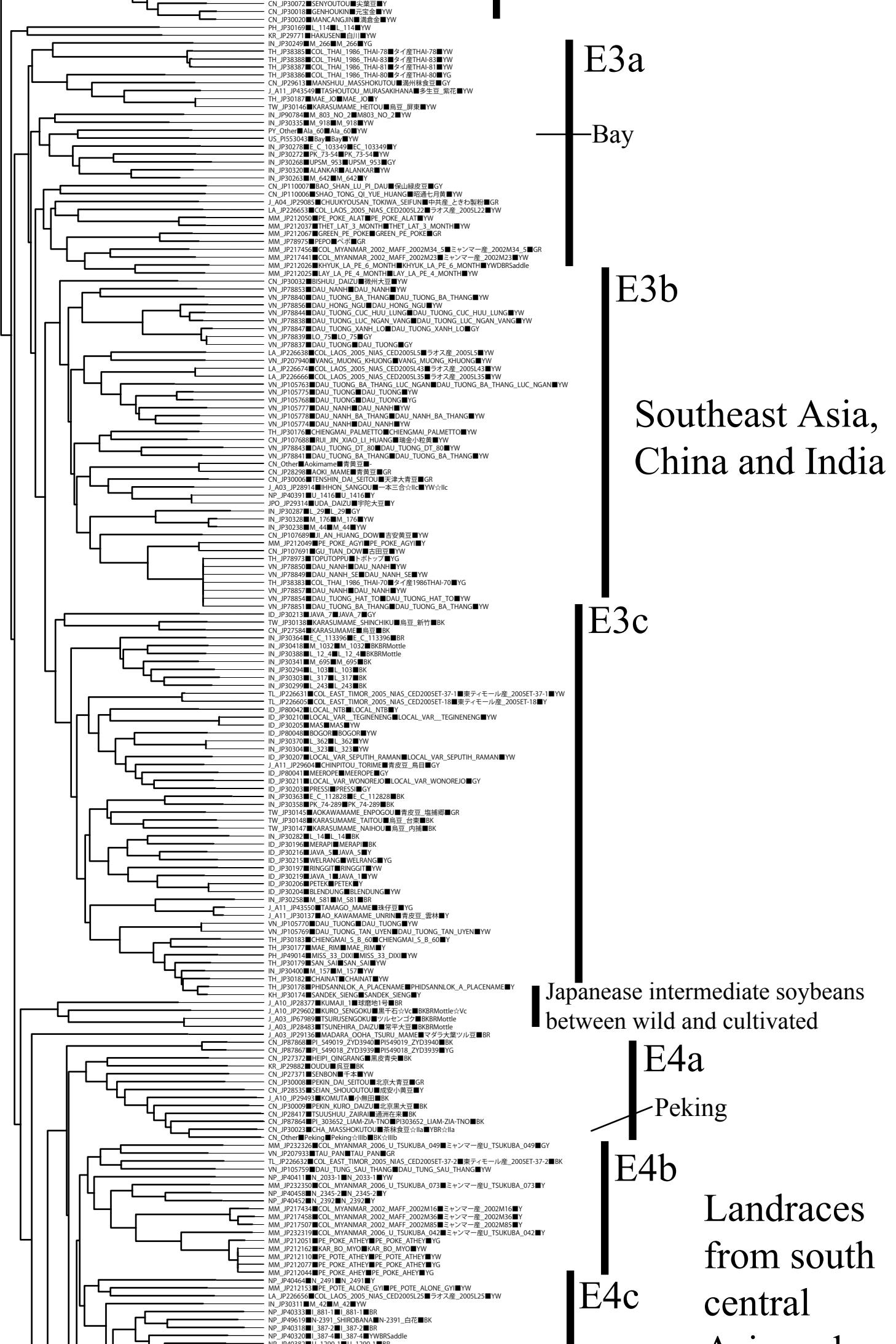
E1: Korean landraces

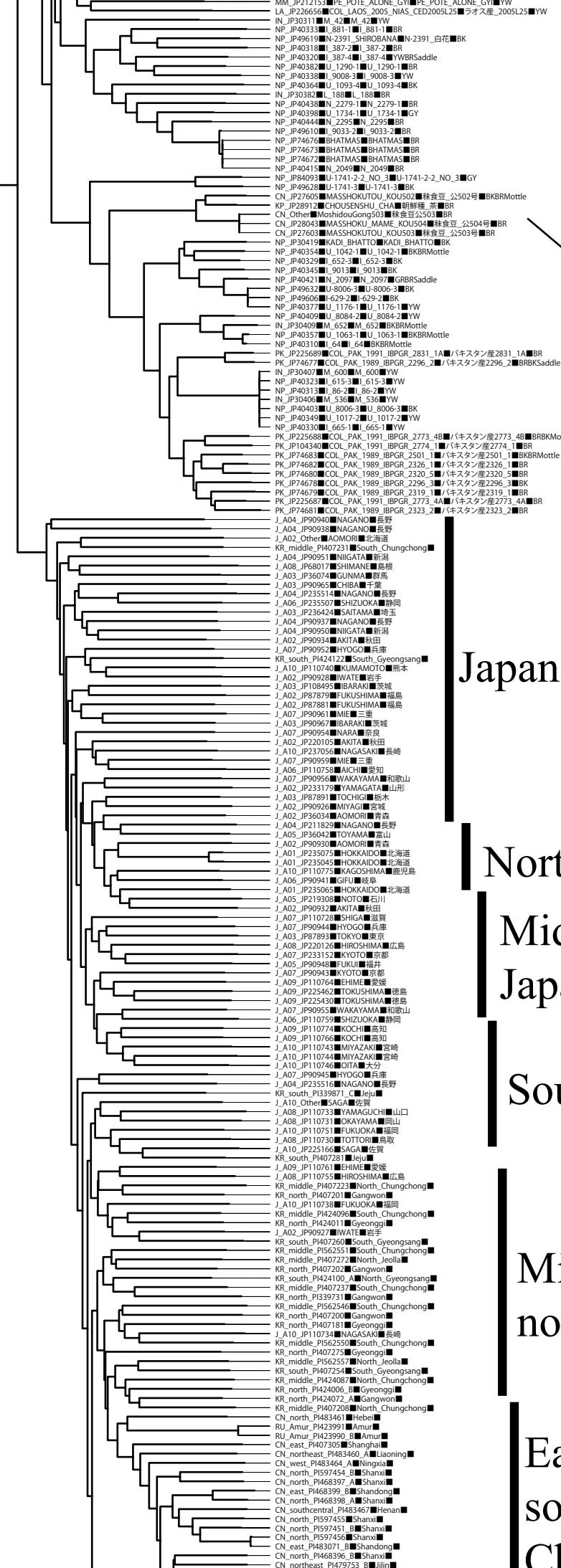
Harosoy

E2: Chinese  
landraces

Williams 82

E3a





E4c

# central Asia and China

E4d

Moshidou  
Gong503

# Wild soybean cluster

Japan

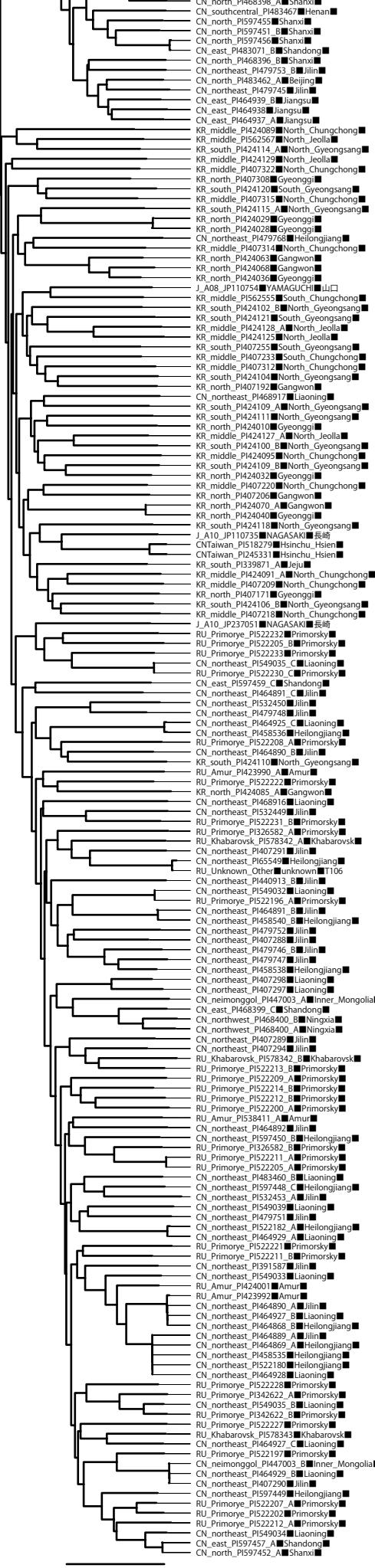
# North Japan

# Middle Japan

# South Japan

## Middle to north Korea

East, west,  
south central  
China



# south central China

## Middle to south Korea

- *G. formosa*

# Northeast China and Far East Russia