

Table S5. Reads statistics of 21 pinewood nematode samples. HQ, high quality; Adapter, number of reads with adapter in clean reads; Low quality, number of reads containing low quality bases to a certain extent; polyA, number of reads containing poly adenine to a certain extent; N, number of reads containing poly adenine to a certain extent.

Sample	Clean Reads Number	HQ Clean Reads Number (%)	Read length	Adapter (%)	Low quality (%)	polyA (%)	N (%)
CW	16036586	15854138(98.86%)	150 + 150	53828(0.34%)	257240(0.8%)	0(0.0%)	0(0.0%)
CY	12367170	12210040(98.73%)	150 + 150	45040(0.36%)	224180(0.91%)	0(0.0%)	0(0.0%)
DT	16301008	16107830(98.81%)	150 + 150	45492(0.28%)	295372(0.91%)	0(0.0%)	0(0.0%)
DY	15996108	15686412(98.06%)	150 + 150	63926(0.4%)	491540(1.54%)	0(0.0%)	0(0.0%)
FC	15542646	15371656(98.9%)	150 + 150	44068(0.28%)	253844(0.82%)	0(0.0%)	0(0.0%)
FS	14608468	14380726(98.44%)	150 + 150	50086(0.34%)	355312(1.22%)	0(0.0%)	0(0.0%)
GJ	18082484	17869446(98.82%)	150 + 150	57646(0.32%)	310764(0.86%)	0(0.0%)	20(0.0%)
HC	16321712	16101682(98.65%)	150 + 150	55822(0.34%)	328416(1.01%)	0(0.0%)	0(0.0%)
HN	16844416	16603740(98.57%)	150 + 150	47968(0.28%)	385416(1.14%)	0(0.0%)	0(0.0%)

HP	17336402	17078962(98.52%)	150 + 150	65242(0.38%)	384396(1.11%)	0(0.0%)	0(0.0%)
LP	12862122	12675306(98.55%)	150 + 150	47610(0.37%)	278412(1.08%)	0(0.0%)	0(0.0%)
LS	17986750	17760654(98.74%)	150 + 150	54728(0.3%)	342728(0.95%)	0(0.0%)	8(0.0%)
LZ	13800412	13592284(98.49%)	150 + 150	43078(0.31%)	330100(1.2%)	0(0.0%)	0(0.0%)
MP	16124822	15865180(98.39%)	150 + 150	52730(0.33%)	413824(1.28%)	0(0.0%)	0(0.0%)
SH	12689430	12485782(98.4%)	150 + 150	46596(0.37%)	314104(1.24%)	0(0.0%)	0(0.0%)
TS	18702122	18473694(98.78%)	150 + 150	57796(0.31%)	341264(0.91%)	0(0.0%)	0(0.0%)
XB	15066690	14870464(98.7%)	150 + 150	41448(0.28%)	309556(1.03%)	0(0.0%)	0(0.0%)
XG	16731120	16541936(98.87%)	150 + 150	42390(0.25%)	293584(0.88%)	0(0.0%)	4(0.0%)
YC	12685392	12545030(98.89%)	150 + 150	42924(0.34%)	194876(0.77%)	0(0.0%)	0(0.0%)
YD	14324352	14118206(98.56%)	150 + 150	54416(0.38%)	303460(1.06%)	0(0.0%)	0(0.0%)
YS	13499744	13321304(98.68%)	150 + 150	47774(0.35%)	261332(0.97%)	0(0.0%)	0(0.0%)

Table S6. Base statistics after filtration. Clean data, number of bases; HQ clean data, number of bases after filtration; HQ Q20, number of bases with quality value above Q20 in filtered HQ clean data; HQ Q30, number of bases with quality value above Q30 in filtered HQ clean data; HQ N, number of N bases in single ended reads in filtered HQ clean data; HQ GC, number of bases containing guanine and cytosine a in filtered HQ clean data.

Sample	Clean Data(bp)	HQ Clean Data (bp)	HQ Q20 (%)	HQ Q30 (%)	HQ N (%)	HQ GC (%)
CW	2405487900	2357955048	2263664387 (96.0%)	2118742600(89.86%)	5068(0.0%)	952857885(40.41%)
CY	1855075500	1815796146	1741171388(95.89%)	1628722308(89.7%)	3880(0.0%)	747068747(41.14%)
DT	2445151200	2401161020	2333095197(97.17%)	2213733729(92.19%)	3134(0.0%)	1059000698(44.1%)
DY	2399416200	2330310084	2243534662(96.28%)	2107705911(90.45%)	5096(0.0%)	947701123(40.67%)
FC	2331396900	2271662586	2193350804(96.55%)	2066337030(90.96%)	4855(0.0%)	936615134(41.23%)
FS	2191270200	2124914326	2050909500(96.52%)	1931819709(90.91%)	4634(0.0%)	859587357(40.46%)
GJ	2712372600	2659899727	2568920538(96.58%)	2421476001(91.04%)	7752(0.0%)	1132264642(42.57%)
HC	2448256800	2395737956	2304114465(96.18%)	2161911047(90.24%)	5192(0.0%)	996571682(41.6%)
HN	2526662400	2474449203	2390123572(96.59%)	2253560413(91.07%)	7299(0.0%)	1120931784(45.3%)

HP	2600460300	2539330615	2441219339(96.14%)	2289911650(90.18%)	5595(0.0%)	1011322420(39.83%)
LP	1929318300	1886173730	1810854894(96.01%)	1695638570(89.9%)	4096(0.0%)	778478786(41.28%)
LS	2698012500	2645227813	2550626707(96.42%)	2400008800(90.73%)	7740(0.0%)	1090333767(41.22%)
LZ	2070061800	2011862721	1940093058(96.43%)	1824841913(90.7%)	4475(0.0%)	793119890(39.42%)
MP	2418723300	2357481106	2276601684(96.57%)	2145582368(91.01%)	5221(0.0%)	930151511(39.46%)
SH	1903414500	1858174309	1784019124(96.01%)	1671039091(89.93%)	4089(0.0%)	778023609(41.87%)
TS	2805318300	2752616869	2660325552(96.65%)	2508868505(91.14%)	3800(0.0%)	1100565025(39.98%)
XB	2260003500	2217134124	2142490749(96.63%)	2020080458(91.11%)	3353(0.0%)	904005727(40.78%)
XG	2509668000	2466690843	2383465966(96.63%)	2246495303(91.07%)	6869(0.0%)	1179639619(47.82%)
YC	1902808800	1866371556	1788390944(95.82%)	1670739336(89.52%)	3975(0.0%)	763846866(40.93%)
YD	2148652800	2099836947	2014250188(95.92%)	1884770434(89.76%)	4641(0.0%)	859786300(40.94%)
YS	2024961600	1982267130	1903153733(96.01%)	1782324303(89.91%)	4339(0.0%)	807694571(40.74%)

Table S7. Mapping statistics of 21 pinewood nematode samples.

Sample	Total	Total UnMapped	Total Mapped	Total Pair	Total Single	Unique Mapped	Multi-Mapped	Perfect Mapped	Mismatch	Clean	Duplicate
ID	Read			Mapped	Mapped				Mapped		
CW	15854138	849275-5.36%	15004863-94.64%	13952632-88.01%	1052231-6.64%	13723945-86.56%	1280918-8.08%	12077763-76.18%	2927100-18.46%	12056017-76.04%	1275480-8.50%
CY	12210040	940297-7.70%	11269743-92.30%	10269786-84.11%	999957-8.19%	10406356-85.23%	863387-7.07%	8715649-71.38%	2554094-20.92%	8967145-73.44%	905926-8.04%
DT	16107830	3148118-19.54%	12959712-80.46%	12146708-75.41%	813004-5.05%	11970858-74.32%	988854-6.14%	10219664-63.45%	2740048-17.01%	10549465-65.49%	1687580- 13.02%
DY	15686412	1589782-10.13%	14096630-89.87%	13456116-85.78%	640514-4.08%	12967663-82.67%	1128967-7.20%	11150986-71.09%	2945644-18.78%	11225375-71.56%	1485090- 10.54%
FC	15371656	1294215-8.42%	14077441-91.58%	13639598-88.73%	437843-2.85%	12919000-84.04%	1158441-7.54%	11513466-74.90%	2563975-16.68%	11442761-74.44%	1488920- 10.58%
FS	14380726	1445206-10.05%	12935520-89.95%	12457678-86.63%	477842-3.32%	11958707-83.16%	976813-6.79%	10160947-70.66%	2774573-19.29%	10404143-72.35%	1286958-9.95%

GJ	17869446	2356144-13.19%	15513302-86.81%	14260404-79.80%	1252898-7.01%	14276168-79.89%	1237134-6.92%	12051945-67.44%	3461357-19.37%	12362489-69.18%	1721636- 11.10%
HC	16101682	1680115-10.43%	14421567-89.57%	13318106-82.71%	1103461-6.85%	13281996-82.49%	1139571-7.08%	11192191-69.51%	3229376-20.06%	11457502-71.16%	1335074-9.26%
HN	16603740	4916961-29.61%	11686779-70.39%	11010766-66.31%	676013-4.07%	10791233-64.99%	895546-5.39%	9100776-54.81%	2586003-15.57%	9363094-56.39%	1235500- 10.57%
HP	17078962	781489-4.58%	16297473-95.42%	15503970-90.78%	793503-4.65%	14910262-87.30%	1387211-8.12%	13114130-76.79%	3183343-18.64%	13037672-76.34%	1541478-9.46%
LP	12675306	1155604-9.12%	11519702-90.88%	10761346-84.90%	758356-5.98%	10610966-83.71%	908736-7.17%	9217941-72.72%	2301761-18.16%	9270753-73.14%	1015144-8.81%
LS	17760654	2000187-11.26%	15760467-88.74%	14812532-83.40%	947935-5.34%	14473816-81.49%	1286651-7.24%	12280738-69.15%	3479729-19.59%	12578584-70.82%	1735910- 11.01%
LZ	13592284	473440-3.48%	13118844-96.52%	12632572-92.94%	486272-3.58%	12124910-89.20%	993934-7.31%	10340321-76.07%	2778523-20.44%	10645263-78.32%	1251670-9.54%
MP	15865180	679186-4.28%	15185994-95.72%	14079266-88.74%	1106728-6.98%	13987421-88.16%	1198573-7.55%	11765108-74.16%	3420886-21.56%	12049999-75.95%	1444338-9.51%
SH	12485782	1770793-14.18%	10714989-85.82%	10093212-80.84%	621777-4.98%	9888468-79.20%	826521-6.62%	8298439-66.46%	2416550-19.35%	8498055-68.06%	960666-8.97%

TS	18473694	1160914-6.28%	17312780-93.72%	16303844-88.25%	1008936-5.46%	15973590-86.47%	1339190-7.25%	13474337-72.94%	3838443-20.78%	13945726-75.49%	2354208- 13.60%
XB	14870464	1042472-7.01%	13827992-92.99%	13008890-87.48%	819102-5.51%	12752536-85.76%	1075456-7.23%	10814698-72.73%	3013294-20.26%	11166822-75.09%	1829602- 13.23%
XG	16541936	5952678-35.99%	10589258-64.01%	9729934-58.82%	859324-5.19%	9588408-57.96%	1000850-6.05%	8260547-49.94%	2328711-14.08%	8347595-50.46%	1115870- 10.54%
YC	12545030	825587-6.58%	11719443-93.42%	11016254-87.81%	703189-5.61%	10798173-86.08%	921270-7.34%	9137949-72.84%	2581494-20.58%	9355589-74.58%	1024216-8.74%
YD	14118206	1203357-8.52%	12914849-91.48%	12012162-85.08%	902687-6.39%	11842685-83.88%	1072164-7.59%	9841048-69.70%	3073801-21.77%	10060596-71.26%	1136892-8.80%
YS	13321304	925761-6.95%	12395543-93.05%	11542782-86.65%	852761-6.40%	11378529-85.42%	1017014-7.63%	9618794-72.21%	2776749-20.84%	9813584-73.67%	1068390-8.62%

Table S8. Genome coverage statistics of 21 pinewood nematode samples.

Sample_ID	1X(%)	4X(%)	10X(%)	20X(%)	30X(%)
CW	95.35	93.28	90.75	79.79	39.73
CY	94.39	91.68	87.54	55.92	12.19
DT	94.3	91.59	87.75	67.73	26.9
DY	96.49	94.3	89.99	69.87	32.62
FC	95	92.74	89.23	70.84	33.08
FS	94.43	91.54	86.59	62.53	26.81
GJ	94.74	92.43	89.77	80.51	44.81
HC	94.61	92.19	89.33	76.5	35.62
HN	94.23	91.62	87.8	59.47	15.2
HP	95.43	93.42	90.99	81.81	49.4

LP	95.48	93.07	88.64	56.97	13.92
LS	94.64	92.26	89.65	80.61	47.2
LZ	94.06	91.39	86.91	64.98	28.72
MP	94.78	92.22	89.1	75.26	40.84
SH	94.27	91.48	86.24	49.1	10.34
TS	94.68	92.44	90.04	83.28	58.65
XB	94.34	91.95	89.14	74.36	32.04
XG	94.18	91.38	86.19	46.81	8.32
YC	94.37	91.68	87.86	60.76	15.1
YD	96.68	93.8	89.3	67.36	21.96
YS	94.78	91.92	88.43	65.03	18.94