Outline of practical forestry guide series

Stage	Years	Description
1	0	PLANNING YOUR FOREST (IFJ 4 April)
2	1	FOREST ESTABLISHMENT
		- vegetation control (IFJ 11April)
		- site cultivation (IFJ 18April)
		- protection – fencing, firelines (IFJ 25April)
		- planting (IFJ 9 May)
3	2-4	MAINTENANCE (IFJ 30 May)
4	5-10	MONITORING AND ACCESS (IFJ 13 June)
5	11-15	PRE-PRODUCTION (IFJ 20 June)
6	16-20	PRODUCTION (IFJ 27 June)
		- thinning (IFJ 27 June)
		- pruning (IFJ 25 July)
7	21-30	SUBSEQUENT THINNINGS (this week)
8	Over 30	FINAL HARVEST AND REFORESTATION

Table 1: Estimated timing of thinning based on yield classes (YCs) 14-28 for Sitka spruce, Norway spruce, Douglas fir, Japanese and hybrid larch (larch) and Scots pine with average thinning yield.

YC**	Age of first, and subsequent thinning for selected species based on thinning cycles: five years (YC 12-18); four years (YC 20-24); three years (YC 26-30)*					Average thinning yield (m^3/ha)***
	Sitka spruce	Norway spruce	Douglas fir	Larch	Scots pine	
12	24; 29; 34, 39	25; 30; 35; 40, 45	23; 28; 33	16; 21; 26; 31, 36	23; 28, 33, 38, 43	36-40
14	22; 27; 32; 37	24; 29; 34; 39, 44	21; 26; 30	14; 19; 24, 29, 34	20; 25; 30, 35, 41	40-44
16	20; 25; 30; 35	22; 27; 32; 37, 42	19; 24; 29	13; 18; 23; 28, 33	19; 24; 29, 34, 38	44-48
18	19; 24; 29; 34	20; 25; 30; 35, 40	18; 23; 28	-	-	48-54
20	18; 22, 26; 30; 34	18; 22; 26; 30, 34	17; 21; 25; 29	-	-	45-50
22	17, 21, 25; 29	17; 21; 25; 29, 33	16; 20; 24; 28	-	-	50-55
24	16; 20, 24; 28	16; 20; 24; 28, 32	15; 19; 23; 27	-	-	55-60
26	15; 18; 21; 24; 27	-	14, 17, 20, 23, 26	-	-	45-50
28	14; 17; 20; 23; 26	-	-	-	-	50-54
30	13; 16; 19; 22; 25	-	-	-	-	54-60

Source: Magner, D. (2015). Adapted from Hart (1991), Forest & Wildlife Service (1975), Rollinson (1985) and Hamilton & Christie (1971).
* Year of final thinning assessed before clearfell (30% reduction of age of maximum volume increment). Thinning may continue depending a number of factors including vulnerability to windthrow, timber demand and log prices.
** Yield class (YC) is the potential annual optimum rate of growth in cubic metres per hectare (m^3/ha/per annum).
***Production calculated at 60% of YC x thinning cycles: 5, 4 and 3 years.

Table 2: Tending and thinning phases for oak, ash, beech and sycamore by top heights and other information on number of final crop trees, clearfell year and diameter (cm) at clearfell.

Operations	Top heights (m) for various tending and thinning operations.			
	Oak	Ash	Beech	Sycamore
Tending	5-6	6-8	5-6	6-8
Thinning				
1st	10-11	10-12	12-14	12-14
2nd	13-15*	12-13	15*	15*
3rd	15-17	15*	17-18	17-18
4th	17-19	18	18-20	18-20
5th	19-21	21	20-22	20-22
6th	21-23	24	22-24	22-24
7th	23-25	37	24-26	24-26
8th	25-27	30	26-28	26-28
9th	27-29		28-30	28-30
10th	29-31		30-32	
Final thin	31-33		32-35	
Clearfell	>33	>30	>35	>30
Other				
No. final crop trees	100-140	100-140	100-140	100-140
Clearfell year	130-160	60-80	100-120	70-80
DBH**	65-67cm	50-55cm	40-60cm	40-60cm

Source: Magner, D (2015). Adapted from Growing Broadleaves (1998), Joyce, P (ed); and Silviculture of Broadleaved Woodland. (1984), Evans, J.

*Select potential crop trees at top heights (13-15m): 200-250/ha for oak and beech; and 350 for ash and sycamore to ensure an actual final crop stocking of 100 to 140/ha for oak and beech; and 100-140 for ash and sycamore.
**Average diameter (cm) at breast height (DBH) taken at 1.3m above ground level at age of clearfell.