

## Waypoint Analytical Plant Analysis Crop List

Revised 4/8/2022

Crop #	Crop Name	Growth Stage	Plant Part/Sampling Instructions
<b>Agronomic</b>			
3001	Barley	Pre-boot stage	Top leaf (40+)
3002	Barley	Emergence of head from boot	Whole tops (40+ or 1 pint)
3003	Barley*	Boot stage	Top leaf (40+)
3555	Beet, Sugar	50-80 days after planting	Leaves (25+)
3566	Beet, Sugar (Petiole NO3-N)	Emergence to 9 mos. prior to harvest	Petioles (1 pint)
3567	Beet, Sugar (Petiole NO3-N)	8 mos. prior to harvest	Petioles (1 pint)
3568	Beet, Sugar (Petiole NO3-N)	7 mos. prior to harvest	Petioles (1 pint)
3569	Beet, Sugar (Petiole NO3-N)	6 mos. prior to harvest	Petioles (1 pint)
3570	Beet, Sugar (Petiole NO3-N)	5 mos. prior to harvest	Petioles (1 pint)
3571	Beet, Sugar (Petiole NO3-N)	2-4 mos. prior to harvest	Petioles (1 pint)
3572	Beet, Sugar (Petiole NO3-N)	0-8 weeks prior to harvest	Petioles (1 pint)
3680	Cannabis	Vegetative prior to flowering	Mature leaves from new growth (45+)
3004	Canola	Prior to flowering	Recent fully developed leaf (20+)
3006	Corn	Less than 12" (VE-V3)	Whole plant (12+ or 1 pint)
3007	Corn	Prior to tasseling (V4-VT)	Leaf below whorl (10+)
3005	Corn*	Silking (R1)	Ear leaf (10+)
3009	Corn	Maturity (R2-R5)	Earleaf (10+)
3008	Corn (NO3-N on stalks only)	After black layer (R6)	Stalk 6" to 12" above ground (10+)
3800	Corn	V1	Whole plant (12+ or 1 pint)
3801	Corn	V2	Whole plant (12+ or 1 pint)
3802	Corn	V3	Whole plant (12+ or 1 pint)
3803	Corn	V4	Leaf below whorl (10+)
3804	Corn	V5	Leaf below whorl (10+)
3805	Corn	V6	Leaf below whorl (10+)
3806	Corn	V7	Leaf below whorl (10+)
3807	Corn	V8	Leaf below whorl (10+)
3808	Corn	V9	Leaf below whorl (10+)
3809	Corn	V10	Leaf below whorl (10+)
3810	Corn	V11	Leaf below whorl (10+)
3811	Corn	V12	Leaf below whorl (10+)
3812	Corn	V13	Leaf below whorl (10+)
3813	Corn	V14	Leaf below whorl (10+)
3814	Corn	V15	Leaf below whorl (10+)
3815	Corn	V16	Leaf below whorl (10+)
3816	Corn	V17	Leaf below whorl (10+)
3817	Corn	V18	Leaf below whorl (10+)
3818	Corn	VT	Leaf below whorl (10+)
3820	Corn	R2	Earleaf (10+)
3821	Corn	R3	Earleaf (10+)
3822	Corn	Early Dough	Earleaf (10+)
3823	Corn	R4	Earleaf (10+)
3824	Corn	Early Dent	Earleaf (10+)
3825	Corn	R5	Earleaf (10+)
3603	Corn - SERA 6	Seedling less than 4 inches	Whole plant (12+ or 1 pint)
3604	Corn - SERA 6	Early Growth	Leaf below whorl (10+)
3605	Corn - SERA 6	At Tasseling	Leaf below whorl (10+)
3606	Corn - SERA 6	Tasseling/Bloom	Ear leaf (10+)
3607	Corn - SERA 6	Maturity	Ear leaf (10+)
3544	Coffee	Mature plants, flower intiation	50 leaves (4th pair from tip)
3545	Coffee	Mature plants, fruiting	50 leaves (4th pair from non-fruiting branches)
3492	Cotton	Pre bloom	Recent fully developed leaf (20+) ( no petiole)
3010	Cotton	Early bloom	Recent fully developed leaf (20+) ( no petiole)
3491	Cotton	Mid bloom	Recent fully developed leaf (20+) ( no petiole)
3011	Cotton*	Late bloom	Recent fully developed leaf (20+) ( no petiole)
3608	Cotton - SERA 6	Early bloom	3-5th leaf from terminal (40+) (no petiole)
3609	Cotton - SERA 6	Late bloom	3-5th leaf from terminal (40+) (no petiole)
3071	Cotton, Petiole ( Sands)	Week before first bloom	Petiole from 4th leaf from top (60+)
3072	Cotton, Petiole ( Sands)	First bloom	Petiole from 4th leaf from top (60+)
3073	Cotton, Petiole ( Sands)	Bloom + 1	Petiole from 4th leaf from top (60+)
3074	Cotton, Petiole ( Sands)	Bloom + 2	Petiole from 4th leaf from top (60+)
3075	Cotton, Petiole ( Sands)	Bloom + 3	Petiole from 4th leaf from top (60+)
3076	Cotton, Petiole ( Sands)	Bloom + 4	Petiole from 4th leaf from top (60+)
3077	Cotton, Petiole ( Sands)	Bloom + 5	Petiole from 4th leaf from top (60+)
3078	Cotton, Petiole ( Sands)	Bloom + 6	Petiole from 4th leaf from top (60+)



3079	Cotton, Petiole ( Sands)	Bloom + 7	Petiole from 4th leaf from top (60+)
3482	Cotton, Petiole ( Loams +)	Week before first bloom	Petiole from 4th leaf from top (60+)
3483	Cotton, Petiole ( Loams +)	First bloom	Petiole from 4th leaf from top (60+)
3484	Cotton, Petiole ( Loams +)	Bloom + 1	Petiole from 4th leaf from top (60+)
3485	Cotton, Petiole ( Loams +)	Bloom + 2	Petiole from 4th leaf from top (60+)
3486	Cotton, Petiole ( Loams +)	Bloom + 3	Petiole from 4th leaf from top (60+)
3487	Cotton, Petiole ( Loams +)	Bloom + 4	Petiole from 4th leaf from top (60+)
3488	Cotton, Petiole ( Loams +)	Bloom + 5	Petiole from 4th leaf from top (60+)
3489	Cotton, Petiole ( Loams +)	Bloom + 6	Petiole from 4th leaf from top (60+)
3490	Cotton, Petiole ( Loams +)	Bloom + 7	Petiole from 4th leaf from top (60+)
3856	Cotton	Emergence to First Square	Recently fully developed leaf (40+)
3857	Cotton	First square to Bloom	Recently fully developed leaf (40+)
3858	Cotton	Bloom +1 week	Recently fully developed leaf (40+) (no petiole)
3859	Cotton	Bloom +2 week	Recently fully developed leaf (40+) (no petiole)
3860	Cotton	Bloom +3 week	Recently fully developed leaf (40+) (no petiole)
3861	Cotton	Bloom +4 week	Recently fully developed leaf (40+) (no petiole)
3862	Cotton	Bloom +5 week	Recently fully developed leaf (40+) (no petiole)
3650	Flax	Flowering	Whole tops (10+)
3013	Grain Sorghum	Seedling, 20-40 days old	Whole plant (20+)
3014	Grain Sorghum	Prior to flowering	Recent fully developed leaf (20+)
3015	Grain Sorghum*	Bloom stage visible heads	Second leaf below head (20+)
3016	Grain Sorghum	Grain fill	Second leaf below head (20+)
3738	Hemp (Field, Vegetative)	Vegetative prior to flowering	Mature leaves from new growth (45+)
3739	Hemp (Field, Flowering)	Vegetative post flowering	Mature leaves from new growth (45+)
3740	Hemp (GH, Vegetative)	Vegetative prior to flowering	Mature leaves from new growth (45+)
3741	Hemp (GH, Flowering)	Vegetative post flowering	Mature leaves from new growth (45+)
3055	Kenaf	Summer	10 stems (10 cm base section)
3017	Milo	Vegetative stage	Recent fully developed leaf (20+)
3018	Oats	Seedling to tillering	Whole plant (30+)
3019	Oats	Jointing to flag leaf	Top 2-3 leaves with stem (20+)
3020	Oats*	Flag leaf to maturity	Flag leaves (20+)
3021	Oil Palm*	Young non-fruiting trees	Leaflets from central portion of # 3 frond (40+)
3022	Oil Palm	Young non-fruiting trees	Leaflets from central portion of # 17 frond (40+)
3767	Peas, Field	Early bloom	Most recently matured compound leaf (60+)
3023	Peanuts*	Bloom stage or before	Whole tops (30+)
3024	Peanuts	Early pegging	Whole tops (25+)
3025	Popcorn	Prior to tasseling	Leaf below whorl (10+)
3026	Rice	Mid-tillering (V6-V13)	Recent fully developed leaf (20+)
3027	Rice*	Panicle initiation (R0-R5)	Recent fully developed leaf (20+)
3028	Rye	Seedling to tillering	Whole plant (30+)
3029	Rye	Jointing to flag leaf	Top 2-3 leaves with stem (20+)
3030	Rye*	Flag leaf to maturity	Flag leaves (20+)
3032	Soybeans	Prior to flowering (V1-V6)	Recent fully developed leaf (25+)
3033	Soybeans	Early bloom (R1)	Recent fully developed leaf (25+)
3031	Soybeans*	Prior to pod set (R2-R3)	Recent fully developed leaf (25+)
3034	Soybeans	Pod Fill (R4-R6)	Recent fully developed leaf (25+)
3610	Soybeans - SERA-6	Early Growth	Recent fully developed leaf (25+)
3611	Soybeans - SERA-6	Flowering	Recent fully developed leaf (25+)
3827	Soybeans	V1	Recent fully developed leaf (25+)
3828	Soybeans	V2	Recent fully developed leaf (25+)
3829	Soybeans	V3	Recent fully developed leaf (25+)
3830	Soybeans	V4	Recent fully developed leaf (25+)
3831	Soybeans	V5	Recent fully developed leaf (25+)
3832	Soybeans	V6	Recent fully developed leaf (25+)
3833	Soybeans	V7	Recent fully developed leaf (25+)
3834	Soybeans	V8	Recent fully developed leaf (25+)
3835	Soybeans	V9	Recent fully developed leaf (25+)
3836	Soybeans	V10	Recent fully developed leaf (25+)
3837	Soybeans	R1	Recent fully developed leaf (25+)
3838	Soybeans	R2	Recent fully developed leaf (25+)
3839	Soybeans	R3	Recent fully developed leaf (25+)
3840	Soybeans	R4	Recent fully developed leaf (25+)
3841	Soybeans	R5	Recent fully developed leaf (25+)
3842	Soybeans	R6	Recent fully developed leaf (25+)
3037	Sugarcane	Spring	Leaf 3-4 from top (midrib removed) (20+)
3038	Sugarcane*	Early Summer	Leaf 3 from tip (with midrib) (15+)
3039	Sugarcane	Late Summer	Leaf 4-6 from top (midrib removed) (20+)
3040	Sunflower	Mid-season	Recent fully mature leaf (20+)
3041	Tobacco, Burley	Seedling	Recent fully developed leaf (6+)
3042	Tobacco, Burley	Early Growth	Recent fully developed leaf (6+)
3043	Tobacco, Burley*	Flowering	Recent fully developed leaf (6+)



3044	Tobacco, Burley	Maturity	2nd leaf from the top (6+)
3056	Tobacco, Dark	Seedling	Recent fully developed leaf (6+)
3057	Tobacco, Dark	Early Growth	Recent fully developed leaf (6+)
3058	Tobacco, Dark*	Flowering	Recent fully developed leaf (6+)
3059	Tobacco, Dark	Maturity	2nd leaf from the top (6+)
3045	Tobacco, Flue-cured	Seedling	Recent fully developed leaf (6+)
3046	Tobacco, Flue-cured	Early Growth	Recent fully developed leaf (6+)
3047	Tobacco, Flue-cured*	Flowering	Recent fully developed leaf (6+)
3048	Tobacco, Flue-cured	Maturity	Recent fully developed leaf (6+)
3049	Tobacco, Flue-cured	Harvest	Upper leaf (6+)
3050	Tobacco, Flue-cured	Harvest	Middle leaf (6+)
3051	Tobacco, Flue-cured	Harvest	Lower leaf (6+)
3052	Wheat	Seedling to tillering (F1-F5)	Whole plant (30+)
3053	Wheat*	Jointing to flag leaf (F6-F10)	Top 2-3 leaves with stem (20+)
3054	Wheat	Flag leaf to maturity (F10.1 and above)	Flag leaves (20+)
3845	Wheat	F1	Whole plant (30+ or 1 pint)
3846	Wheat	F2	Whole plant (30+ or 1 pint)
3847	Wheat	F3	Whole plant (30+ or 1 pint)
3848	Wheat	F4	Whole plant (30+ or 1 pint)
3849	Wheat	F5	Whole plant (30+ or 1 pint)
3850	Wheat	F6	Top 2-3 leaves with stem (30+)
3851	Wheat	F7	Top 2-3 leaves with stem (30+)
3852	Wheat	F8	Top 2-3 leaves with stem (30+)
3853	Wheat	F9	Top 2-3 leaves with stem (30+)
3854	Wheat	F10	Top 2-3 leaves with stem (30+)
3855	Wheat	F10.5	Flag leaves (40+)
<b>Bedding</b>			
3060	Begonia Waxleaf	Mature plants (4" pots & 36 cell pack)	Mature leaf from new growth (25+)
3061	Geranium	Mature plants (4" pots)	Mature leaf from new growth (40+)
3062	New Guinea Impatiens	Mature plants (4" pots)	Mature leaf from new growth (50+)
3063	Marigold, French	Mature plants (36 cell pack)	Mature leaf from new growth (40+)
3064	Marigold, African	Mature plants (36 cell pack)	Mature leaf from new growth (40+)
3065	Pansy	Mature plants (36 cell pack)	Mature leaf from new growth (50+)
3066	Petunia	Mature plants (36 cell pack)	Mature leaf from new growth (50+)
3067	Snapdragon	Mature plants (36 cell pack)	Mature leaf from new growth (50+)
3068	Vinca	Mature plants (4" pots & 36 cell pack)	Mature leaf from new growth (50+)
3634	Violet	Mature plants (36 cell pack)	Mature leaf from new growth (80+)
<b>Conifers</b>			
3080	Arborvitae, American	Mid-season	Terminal cuttings (2-3") from 25 trees
3762	Cedar, Deodar	Summer	Terminal cuttings (2-3") from 25 trees
3763	Cedar, Blue Atlas	Summer	Terminal cuttings (2-3") from 25 trees
3525	Cypress, Bald	Summer	Mature leaf from new growth (50+)
3551	Cypress, False	Summer	Terminal cuttings (2-3") from 25 trees
3082	Cypress, Leyland	Mid-season	Terminal cuttings (2-3") from 25 trees
3083	Fir	Mid-season	Terminal cuttings (2-3") from 25 trees
3084	Fir, Balsam	Mid-season	Terminal cuttings (2-3") from 25 trees
3085	Fir, Douglas	Late summer	Terminal cuttings (2-3") from 25 trees
3333	Ginkgo	Summer	Mature leaves from new growth (35+)
3097	Hemlock, Eastern	Summer	Terminal cuttings (2-3") from 40 trees
3095	Fir, Fraser	Fall, after dormancy	Needles from 20 terminal cuttings
3688	Japanese Umbrella Pine	Mid-season	Terminal cuttings (2-3") from 25 trees
3086	Juniper, Common	Mid-season	Terminal cuttings (2-3") from 25 trees
3088	Pines, Loblolly	Mid-season	Needles from 10 terminal cuttings
3098	Pines, Longleaf	Mid-season	Needles from 10 terminal cuttings
3089	Pines, Slash	Mid-season	Needles from 10 terminal cuttings
3090	Pines, Virginia	Mid-season	Needles from 20 terminal cuttings
3091	Pines, White	Mid-season	Needles from 20 terminal cuttings
3542	Podocarpus	Summer	Leaves from 15 terminal cuttings
3096	Spruce, Blue	Mid-season	Terminal cuttings (2-3") from 25 trees
3092	Spruce, Norway	Mid-season	Terminal cuttings (2-3") from 25 trees
3087	Spruce, Serbian	Mid-season	Terminal cuttings (2-3") from 25 trees
3093	Spruce, White	Mid-season	Terminal cuttings (2-3") from 25 trees
3638	Taxus	Mid-season	Terminal cuttings (2-3") from 30 plants
3094	Yew, Common	Mid-season	Terminal cuttings (2-3") from 30 plants
3099	Yew, Japanese	Mid-season	Terminal cuttings (2-3") from 30 plants
<b>Cut Flowers</b>			
3556	Anthurium - Greenhouse	Mature plants, visible bud stage	Mature leaves from new growth (15+)
3523	Alstroemeria - Greenhouse/field	Mature plants, visible bud stage	Mature leaves from new growth (30+)
3522	Calla Lily	Mid-season	Most recently matured leaf (25+)
3102	Carnation - Greenhouse/field	Mature, visible bud	5th and 6th leaf pairs (50+)





3100	Gladiolus - Field production	Mature plants, visible bud stage	Most recently matured leaves (15+)
3521	Gypsophila	Mid-season	Most recently matured leaves from vegetative growth (50+)
3520	Limonium perezii (Statice)	Summer	Most recently matured leaves (25+)
3689	Lisianthus	Mid-season	Most recently matured leaf (80+)
3101	Rose, Hybrid Tea	Mid-season	Upper three leaflets from mature leaves (35+)
<b>Ferns</b>			
3110	Arborvitae	Summer	30 fronds from new growth
3111	Autumn	Summer	20 fronds from new growth
3112	Boston	Summer	15 fronds from new growth
3113	Christmas	Summer	20 fronds from new growth
3114	Leatherleaf	Spring to Summer	15 fronds from new growth
<b>Florist Pot Crops</b>			
3120	African Violet	Mature plants	Mature leaves new growth - 25
3121	Chrysanthemum	Prior to bud set	4th leaf from tip (30+)
3122	Chrysanthemum	Bud set to harvest	4th leaf from tip (30+)
3123	Daisy, Gerber	Mature (flowering)	Most recently matured leaves (20+)
3124	Hydrangea	Mature (non flowering)	Most recently matured leaves (15+)
3335	Phalaenopsis	Young plants, non-flowering	Mature leaves from new growth (5+)
3336	Phalaenopsis*	Mature plants of flowering size	Mature leaves from new growth (10+)
3125	Poinsettia*	Prior to bract coloration	Most recently matured leaves (25+)
3126	Poinsettia	Bracts colored, flowering	Most recently matured leaves (25+)
<b>Foliage Plants</b>			
3339	Allamanda	Summer	Mature leaves from new growth (25+)
3754	Bird of Paradise	Summer	Mature leaves from new growth (10+)
3684	Caladium	Late Spring to early summer	Fully mature leaves (15+)
3140	Chinese Evergreen <i>Aglaonema commutatum</i>	Mid-season	Most recent fully mature leaf (25+)
3141	Chinese Evergreen <i>Aglaonema modestum</i>	Mid-season	Most recent fully mature leaf (25+)
3142	Croton	Mid-season	Most recent fully mature leaf (25+)
3760	Ginger	Summer	Mature leaves from new growth (10+)
3584	Heliconia <i>H. psittacorum</i>	Summer	Mid section leaf strips (10+)
3143	Hibiscus	Mid-season	Most recent fully mature leaf (25+)
3069	Peony - Doesnt have ratings	Summer	Most recently mature leaf (50+)
3559	Philodendron, Heart-leaf <i>P.scandens</i>	Summer	Most recently matured leaves (50+)
3144	Spathiphyllum	Mature plants	Most recent fully mature leaf (25+)
3145	Spathiphyllum*	Young plants	Leaves and petioles of small plants (50+)
<b>Forages</b>			
3150	Alfalfa	Prior to flowering	Top 6"-12 plants
3151	Alfalfa*	Bloom	Top 6"-12 plants
3152	Bahiagrass	4 to 5 week old plants	Upper half of plant (1 pint)
3153	Bermudagrass, Common	4 to 5 week old plants	Upper half of plant (1 pint)
3154	Bermudagrass, Hybrid	4 to 5 week old plants	Upper half of plant (1 pint)
3171	Birdsfoot Deer Vetch	Prior to flowering	Whole tops (15+)
3169	Bird's-foot Trefoil	Bloom	Top 6"-12 plants
3155	Bluestem	4 to 5 week old plants	Upper half of plant (1 pint)
3156	Clover, Red	Prior to flowering	Whole tops (15+)
3157	Clover, Ladino	Prior to flowering	Mature leaves (50+)
3170	Clover, Subterranean	Prior to flowering	Mature leaves of new growth (75+)
3158	Clover, White	Prior to flowering	Mature leaves (50+)
3159	Coastal Bermuda	4 to 5 week old plants	Upper half of plant (1 pint)
3160	Fescue	4 to 5 week old plants	Upper half of plant (1 pint)
3161	Millet	4 to 5 week old plants	Whole tops (20+)
3162	Orchardgrass	3-4 weeks between clippings	Whole tops (15+)
3163	Pangola Grass	3-4 weeks between clippings	Whole tops (25+)
3164	Ryegrass	4 to 5 week old plants	Whole tops (1 pint)
3165	Smooth Bromegrass	4 to 5 week old plants	Whole top (20+)
3166	Sorghum-sudan	4-5 weeks between clippings	Whole tops (15+)
3167	Sudangrass	4-5 weeks between clippings	Whole tops (15+)
3564	Teff grass	4 to 5 week old plants	Upper half of plant (1 pint)
3168	Timothy	Mid-season	Whole tops (20+)
3591	Siberian Wheatgrass	Late Spring	Whole tops 2cm above soil line (20+)
<b>Fruit and Nut</b>			
3239	Almond	Mid-summer	Mature leaves from current growth (50+)
3671	Almond	April	Most recently matured leaf (50+)
3672	Almond	May	Most recently matured leaf (50+)
3673	Almond	June	Most recently matured leaf (50+)
3674	Almond	July	Most recently matured leaf (50+)
3721	Almond Hull	Harvest	Hulls - 1 pint
3180	Apple	Mid-season	Mid-terminal leaves on new growth (50+)



3181	Apricot - canning	Mid-season	Mature leaves from new growth (50+)
3182	Apricot - fresh fruit	Mid-season	Mature leaves from current growth (50+)
3183	Avocado	Mid-season	Mature leaves from current growth (50+)
3184	Banana*	6-9 months into production season	Mid-section of 3rd most recently matured leaf w/out mid-rib (15+)
3185	Banana	Harvest stage	Mid-section of 3rd most recently matured leaf w/out mid-rib (15+)
3624	Blackberry	Early summer	Mature leaves from current growth (50+)
3186	Blackberry	2-3 weeks post harvest	Mature leaves mid section of primocanes (50+)
3187	Blueberry*	Pre-bloom	Most recent fully mature leaves (1 pint)
3188	Blueberry	Post-bloom	Most recent fully mature leaves (1 pint)
3189	Blueberry	Mature	Most recent fully mature leaves (1 pint)
3687	Blueberry - GA Highbush	Pre-bloom	Most recent fully mature leaves (1 pint)
3720	Blueberry - Michigan St.	Mature	Most recent fully mature leaves (1 pint)
3190	Blueberry, Rabbiteye	Two weeks after harvest	Mature leaves mid-portion of current growth (1 pint)
3748	Breadfruit (Petioles)	Pre-flowering	Petioles from sun-exposed leaves mid-canopy (10+)
3558	Cacao - Production orchards	Mid-season	Most recently mature leaves (40+)
3742	Carambola/Starfruit	Mature	Most recently mature leaves (40+)
3660	Citrus - IFAS	Mid-season	4-6 mo old spring cycle leaves (100+)
3670	Citrus	Mid-season	4-6 mo old spring cycle leaves (100+)
3191	Cherry, sour	Mid-season	Mature leaves from current growth (50+)
3192	Cherry, sweet	Mid-season	Mature leaves from current growth (50+)
3635	Chestnuts	Mid-season	Mature leaves from current growth (50+)
3554	Cranberry	Summer	Mature leaves from current growth (100+)
3681	Dragonfruit	Mid-season	Midsection of mature leaves from new growth (45+)
3193	Fig	Mid-summer	Mature leaves from current growth (25+)
3201	Grapes	Mid-summer	Recent mature leaves adjacent to fruit cluster (15+)
3194	Grape petioles	Full-bloom	Petioles opposite basal flower (80+)
3235	Grape petioles	July 15 to August 15	Petioles from most recently fully expanded leaf (80+)
3195	Grape, Muscadine	Mid-summer	Recent mature leaves adjacent to fruit cluster (15+)
3196	Grape, Table American Hybrids	Full-bloom	Petioles opposite basal flower (80+)
3197	Grape, Table European*	Early summer	Whole leaves opposite bunch cluster (15+)
3198	Grape, Table European	Full-bloom	Petioles opposite basal flower (80+)
3200	Grape, Wine*	Early summer	Whole leaves opposite bunch cluster (25+)
3199	Grape, Wine*	Full-bloom	Whole leaves opposite bunch cluster (25+)
3199	Grape, Wine	Full-bloom	Whole leaves opposite bunch cluster (25+)
3552	Grape, Wine	Veraison	Petioles opposite bunch cluster (1 pint)
3749	Grape, Wine - Oregon State	Bloom	Whole leaf opposite of basal cluster (40+)
3750	Grape, Wine - Oregon State	Veraison	Whole leaf, most recently matured (40+)
3751	Grape, Wine petioles - Oregon State	Bloom	Petiole opposite of basal cluster (1 cup)
3752	Grape, Wine petioles - Oregon State	Veraison	Petiole of most recently matured leaf (1 cup)
3202	Grapefruit	Non-fruiting-Growing season 5-7 mos.	Mature leaves from current growth (30+)
3203	Grapefruit*	Fruiting-rowing season 6-9 months	Mature leaves from current growth (30+)
3561	Guava	Late summer	3rd pair from tip on fruiting shoots (30+)
3516	Hazelnut	Mid-summer	Mature leaves from current growth (25+)
3726	Hazelnut	Bud Break (Apr 1-15)	Mature leaves from current growth (25+)
3727	Hazelnut	Early Leaf Exp (Apr 16-30)	Mature leaves from current growth (25+)
3728	Hazelnut	Early Cluster Dev (May 1-15)	Mature leaves from current growth (25+)
3729	Hazelnut	Early Shell Expansion (May 16-31)	Mature leaves from current growth (25+)
3730	Hazelnut	Rapid Shell Expansion (June 1-15)	Mature leaves from current growth (25+)
3731	Hazelnut	Ovary fertilization (June 16-30)	Mature leaves from current growth (25+)
3732	Hazelnut	Kernel formation (July 1-15)	Mature leaves from current growth (25+)
3733	Hazelnut	Kernel 1/3-2/3 shell fill (July 16-31)	Mature leaves from current growth (25+)
3734	Hazelnut	Kernel 3/4+ fill (Aug 1-15)	Mature leaves from current growth (25+)
3735	Hazelnut	Mature Kernel (Aug 16-31)	Mature leaves from current growth (25+)
3736	Hazelnut	Early nut drop (Sept 1-15)	Mature leaves from current growth (25+)
3562	Hops	Vegetative pre-flower stage	Most recently matured leaf (50+)
3563	Hops	Full-flower	Most recently matured leaf (50+)
3623	Jackfruit	Mid-season	Mature leaves from current growth (50+)
3683	Longan	Summer	Mature leaves from new growth - 2nd & 3rd leaves (30+)
3204	Lemons	Growing season 5-7 months	Mature leaves non fruiting branches (30+)
3205	Lime	Summer	Mature leaves from vegetative shoots (30+)
3560	Lychee	1-2 weeks after panicle emergence	Most recently matured leaves of flowering branches (60+)
3633	Macadamia Nut	Late spring to mid-summer	Mature leaves from new growth (60+)
3206	Mango	Post-flowering	Mature leaves from new growth (15+)
3723	Mangosteen	Mid-season	Mature leaves from current growth (50+)
3505	Nectarine	Fruit set	Mature leaves from current growth (50+)
3236	Olive	Summer	Fully expanded leaves from midshoot (60+)
3207	Orange, Mandarin	Growing season 5-7 months	Mature leaves from vegetative shoots (30+)
3208	Orange, Navel	Growing season 5-7 months	Mature leaves subtending fruit (30+)
3209	Orange, Navel*	Growing season 6-9 months. Between growth flushes	Mature leaves non fruiting branches (30+)
3210	Orange, Satuma	Growing season 5-7 months	Mature leaves from vegetative shoots (30+)
3211	Orange, Sweet	Growing season 5-7 months	Mature leaves from vegetative shoots (30+)



3212	Orange, Sweet*	Growing season 6-9 months. Between growth flushes	Mature leaves non fruiting branches (30+)
3213	Orange, Tangerine	Growing season 5-7 months	Mature leaves from vegetative shoots (30+)
3237	Papaya	Spring	Petioles most recent mature leaves (15+)
3565	Passionfruit	Summer	Mature leaves from active growing lateral shoots (75+)
3216	Peach	Mid-season	Mature leaves from current growth (50+)
3217	Pear	Mid-season	Mature leaves from current growth (50+)
3218	Pecans	56 to 84 days after catkin fall	Middle leaflets from terminal growth (50+)
3621	Persimmon, American	Summer	Mature leaves from current growth (50+)
3622	Persimmon, Japanese	Late Summer	Mature leaves from current growth (50+)
3219	Pineapple	Inflorescence start	Developing leaves without white leaf base (20+)
3506	Pistachio	Late season (August)	Nonbearing branches midway terminal leaflets (100+)
3703	Pistachio	March 1 - March 31	Nonbearing branches midway terminal leaflets (100+)
3704	Pistachio	April 1 - April 15	Nonbearing branches midway terminal leaflets (100+)
3705	Pistachio	April 16 - April 30	Nonbearing branches midway terminal leaflets (100+)
3706	Pistachio	May 1 - May 15	Nonbearing branches midway terminal leaflets (100+)
3707	Pistachio	May 16 - May 31	Nonbearing branches midway terminal leaflets (100+)
3708	Pistachio	June 1 - June 15	Nonbearing branches midway terminal leaflets (100+)
3709	Pistachio	June 16 - June 30	Nonbearing branches midway terminal leaflets (100+)
3710	Pistachio	July 1 - July 15	Nonbearing branches midway terminal leaflets (100+)
3711	Pistachio	July 16 - July 31	Nonbearing branches midway terminal leaflets (100+)
3712	Pistachio	Aug 1 - Aug 15	Nonbearing branches midway terminal leaflets (100+)
3713	Pistachio	Aug 16 - Aug 31	Nonbearing branches midway terminal leaflets (100+)
3714	Pistachio	Sept 1 - Sept 15	Nonbearing branches midway terminal leaflets (100+)
3715	Pistachio	Sept 16 - Sept 30	Nonbearing branches midway terminal leaflets (100+)
3716	Pistachio	Oct 1 - Oct 15	Nonbearing branches midway terminal leaflets (100+)
3717	Pistachio	Oct 16 - Oct 31	Nonbearing branches midway terminal leaflets (100+)
3718	Pistachio	Nov 1 - Nov 15	Nonbearing branches midway terminal leaflets (100+)
3719	Pistachio	Nov 16 - Nov 30	Nonbearing branches midway terminal leaflets (100+)
3498	Plantain	6-9 months into production season	Mid-section of 3rd most recently matured leaf w/out mid-rib (15+)
3220	Plum	Mid-season (July)	Whole leaves from mid-shoot growth (1 pint)
3539	Pomegranate	Summer	Mature leaves from current growth (100+)
3764	Pongamia pinnata	Growing season	Mid leaflets from 25 mature leaves (100+ leaflets)
3221	Prunes	Summer	Whole leaves from mid-shoot growth (25+)
3724	Rambutan	Mid-season	Most recently mature leaves-flowering branches (50+)
3222	Raspberry, Black	2-3 weeks post harvest	Mature leaves mid section of primocanes (50+)
3223	Raspberry, Red	2-3 weeks post harvest	Mature leaves mid section of primocanes (50+)
3768	Soursop/Custard Apple	Late summer	Mature leaves from current growth (50+)
3224	Strawberry, Hill culture	Biweekly after spring growth	Most recent trifoliolate (15+)
3225	Strawberry, Petiole	Biweekly after spring growth	Petiole from above trifoliolate (1 pint)
3690	Strawberry - Florida	Initial harvest	Most recent mature leaf (50+)
3229	Strawberry, Plastic culture	Transplants	Most recent mature leaf (50+)
3230	Strawberry, Plastic culture	Initial flower	Most recent mature leaf (50+)
3231	Strawberry, Plastic culture	Initial harvest	Most recent mature leaf (50+)
3232	Strawberry, Plastic culture	Mid-season	Most recent mature leaf (50+)
3233	Strawberry, Plastic culture	End of season	Most recent mature leaf (50+)
9191	Walnut - Oregon/Calif	June-July	Fully expanded, Mature 2-5 month old leaves (60+)
3226	Walnut, Black	Summer	Mature leaves from new growth (20+)
3227	Walnut, California	Summer	Mature leaves from new growth (20+)
3228	Walnut, English	Summer	Center leaflets from mature leaves (100+ leaflets taken from 25 leaves)
<b>Fruitlet and Tuber Pennsylvania Lab Only</b>			
3691	Apple fruitlet	30-50 mm	1 fruitlet per tree (30 fruitlets)
3692	Apple fruitlet	50mm-Preharvest	1 fruitlet per tree (20 fruitlets)
3693	Apple fruitlet	Preharvest	1 apple per tree (6-9 apples)
POTA	Potato tuber	Immature	Tubers (15+)
POTA	Potato tuber	Preharvest	Tubers (15+)
FPLT	Potato tuber	Post harvest	Tubers (15+)
BLUEB	Blueberry	Preharvest	Berries from mid height of bush (2 cups)
<b>Herbaceous Perennials</b>			
3242	Black Eyed Susan	Summer	Most recent fully mature leaf (1 pint)
3612	Canna Lily	Summer	Mature leaf from new growth (10+)
3581	Coneflower, Purple - container production	Summer	Mature leaves from new growth (50+)
3240	Daylilly	Mid-season	Most recent fully mature leaf (25+)
3543	Iris	Summer	Mature leaf from new growth (25+)
3243	Lillies, Crinum	Summer	Most recent fully mature leaf (25+)
3241	Lobelia	Mid-season	Most recent fully mature leaf (25+)
3573	Salvia spp.	Summer	Mature leaves from new growth (1 pint)
3626	Verbena, Homestead Purple	Summer	Mature leaves from new growth (80+)
<b>Herbs</b>			
3497	Basil	Mid-season	New growth most recent mature leaves (1 pint)
3600	Chives	1/3 to 1/2 maturity	Whole tops, green portion (25+)





3632	Cilantro	Mid-season	Mature leaves from new growth (1 pint)
3636	Dill	Summer	Mature leaves and stems (25+)
3651	Ginseng	Growing season	Most recently matured leaves (1 pint)
3700	Jojoba	Mid-season	Most recently matured leaves (1 pint)
3527	Oregano	Summer	Most recently matured leaves and stems (1 pint)
3035	Parsley	Mid-Season	Most recently matured leaves (1 pint)
3586	Recao / Long coriander	Mid-season	Recent fully developed leaf (30+)
3682	Rosemary	Summer	2 to 3" terminal cuttings (1 pint)
3620	Thyme (English/Silver/Common)	Summer	2 to 3" terminal cuttings (1 pint)
3686	Turmeric	Summer	Mature leaves from new growth (10+)

**Ornamental Vines and Ground Covers**

3250	Euonymus	Summer	2-3" terminal cuttings (1 pint)
3251	Ivy, English	Summer	Most recently matured leaves (1 pint)
3252	Jasmine, Asiatic	Summer	2-3" terminal cuttings (1 pint)
3234	Pachysandra	Summer	Most recent mature leaves (1 pint)
3627	Vinca minor cultivars	Summer (Container prod. Nursery)	2-3" terminal cuttings (1 pint)
3469	Wisteria sinensis (chinese)	Summer	Most recently mature leaves (30+)

**Palms**

3260	Palm, Areca	Mature plants	Most recently mature leaves of middle leaflet (10+)
3337	Palm, Christmas	Summer	Leaflets from midsection of MRM leaves (25+)
3649	Palm, Chamaedorea	Mature plants	Leaflets from midsection of MRM leaves (25+)
3334	Palm, Fishtail	Summer	Leaflets from midsection of MRM leaves (25+)
3263	Palm, Queen	Young Trees	Leaflets from central portion of #3 frond (40+)
3262	Palm, Rhapis	Mature plants	Most recently mature leaves of middle leaflet (10+)
3261	Palm, Robellini	Mature plants	Most recently mature leaves of middle leaflet (10+)
3264	Palm, Fan <i>Washingtonia</i> spp.	Young Trees	Leaflets from central portion of #3 frond (40+)

**Trees**

3270	Ash, Green	Summer	Mature leaves from new growth (10+)
3625	Aspen, Quaking	Summer	Mature leaves from new growth (50+)
3271	Bay, Loblolly	Summer	Mature leaves from new growth (15+)
3297	Beech	Summer	Mature leaves from new growth (15+)
3272	Birch, River	Summer	Mature leaves from new growth (25+)
3273	Bradford Pear	Summer	Mature leaves from new growth (25+)
3501	Buckthorn	Summer	Mature leaves from new growth (25+)
3502	Camphor	Summer	Mature leaves from new growth (20+)
3653	Catalpa	Summer	Mature leaves from new growth (20+)
3503	Cherry, Snowgoose	Summer	Mature leaves from new growth (40+)
3274	Crepe Myrtle, common*	Summer	Mature leaves from new growth (20+)
3275	Crepe Myrtle, hybrid	Summer	Mature leaves from new growth (30+)
3276	Cottonwood	Summer	Mature leaves from new growth (20+)
3541	Desert Willow	Summer	Mature leaves from new growth (1 pint)
3277	Dogwood flowering	Summer	Mature leaves from new growth (20+)
3278	Elm, Chinese	Summer	Mature leaves from new growth (35+)
3299	Elm, Lacebark	Summer	Mature leaves from new growth (35+)
3279	Elm, Hybrid	Summer	Mature leaves from new growth (25+)
3524	Eucalyptus	Mature	Mature leaves from new growth (25+)
9066	Ficus benjamina	Growing season	Mature leaves from new growth (1 pint)
3280	Gum, Sweet	Summer	Mature leaves from new growth (20+)
3702	Linden (Basswood)	Summer	Mature leaves from new growth (10+)
3557	Locust, Honey (Thornless)	Summer	Mature leaves from new growth (30+)
3550	Hornbeam	Summer	Mature leaves from new growth (35+)
3302	Magnolia, Japanese	Summer	Mature leaves from new growth (10+)
3281	Magnolia, Southern	Summer	Mature leaves from new growth (10+)
3282	Maple, Japanese green	Summer	Mature leaves from new growth (30+)
3298	Maple, Sugar	Summer	Mature leaves from new growth (30+)
3283	Maple, Red	Summer	Mature leaves from new growth (25+)
3284	Maple, Sugar Southern	Summer	Mature leaves from new growth (25+)
3300	Oak, Bur	Summer	Mature leaves from new growth (25+)
3285	Oak, Live	Summer	Mature leaves from new growth (25+)
3301	Oak, Nuttall	Summer	Mature leaves from new growth (25+)
3286	Oak, Pin	Summer	Mature leaves from new growth (15+)
3287	Oak, Post	Summer	Mature leaves from new growth (15+)
3288	Oak, Red	Summer	Mature leaves from new growth (15+)
3289	Oak, Sawtooth	Summer	Mature leaves from new growth (20+)
3290	Oak, White	Summer	Mature leaves from new growth (15+)
3291	Oak, Willow	Summer	Mature leaves from new growth (25+)
3526	Pistache, Chinese	Summer	Mature leaves from new growth (25+)
3295	Poplar	Summer	Mature leaves from new growth (15+)
3296	Poplar, Hybrid	Summer	Mature leaves from new growth (15+)
3592	Poplar, Tulip	Summer	Mature leaves from new growth (30+)



3292	Redbud Eastern	Summer	Mature leaves from new growth (30+)
3753	Smokebush/Smoketree	Summer	Mature leaves from new growth (30+)
3580	Snowbell, American <i>Styrax</i> spp.	Summer	Mature leaves from new growth (50+)
3293	Sycamore	Summer	Mature leaves from new growth (5+)
3226	Walnut, Black	Summer	Mature leaves from new growth (5+)
3504	Willow, Black	Summer	Mature leaves from new growth (30+)
3656	Willow, Weeping	Summer	Mature leaves from new growth (30+)
3500	Zelkova	Summer	Mature leaves from new growth (20+)

### Turfgrasses

3320	Bentgrass Green	Growing season	Clippings from new growth ( 1 pint)
3321	Bermuda Green and tees	Summer	Clippings from new growth ( 1 pint)
3322	Bermuda fairways	Summer	Clippings from new growth ( 1 pint)
3323	Bermuda lawns	Summer	Clippings from new growth ( 1 pint)
3324	Bluegrass, Kentucky	Growing season	Clippings from new growth ( 1 pint)
3593	Bluegrass, Annual	Growing season	Clippings from new growth ( 1 pint)
3547	Bluegrass, Rough green & tee	Growing season	Clippings from new growth ( 1 pint)
3330	Centipedegrass	Growing season	Clippings from new growth ( 1 pint)
3325	Fescue	Growing season	Clippings from new growth ( 1 pint)
3326	Fescue, lawn	Growing season	Clippings from new growth ( 1 pint)
3329	Ryegrass, Perennial	Growing season	Clippings from new growth ( 1 pint)
3331	Seashore paspalum green & tee	Summer	Clippings from new growth ( 1 pint)
3327	St. Augustinegrass	Summer	Clippings from new growth ( 1 pint)
3328	Zoysiagrass	Summer	Clippings from new growth ( 1 pint)

### Vegetables

3582	Artichoke	Early harvest (Early bloom)	Most recently matured leaves (20+)
3655	Arugula	Summer	Fully expanded leaves (50+)
3340	Asparagus	Spring	Top 20" fronds
3341	Asparagus*	Mid-season	Top 15" of fronds (10+)
3342	Bean, Butter	Summer	Most recently matured leaves (10+)
3737	Bean, Dry	Summer	Most recently matured leaves (10+)
3344	Bean, Green	Summer	Most recently matured leaves (10+)
3345	Bean, Kidney	Summer	Most recently matured leaves (10+)
3346	Bean, Navy	Summer	Most recently matured leaves (25+)
3652	Bean, Pinto	Summer	Most recently matured leaves (35+)
3347	Beans-Snap	Summer	Most recently matured leaves (10+)
3348	Beet, Table	Young to bulb forming	Leaf blade (40+)
3349	Beet, Table*	Mid-growth	Leaf blade (40+)
3350	Beet, Table	Late summer	Leaf blade (40+)
3352	Broccoli	2-6 weeks old	Most recently matured leaves (15+)
3353	Broccoli	6-12 weeks old	Most recently matured leaves (15+)
3351	Broccoli*	Heading	Most recently matured leaves (15+)
3354	Brussel Sprouts	Mid-season	Most recently matured leaves (15+)
3356	Cabbage	2-6 weeks old	Whole plant (15+)
3357	Cabbage	2-3 months old	Wrapper leaf (12+)
3355	Cabbage*	Mature	Wrapper leaf (12+)
3587	Cabbage, Chinese	Mature	Most recently matured leaves (12+)
3449	Cabbage, Napa	Maturity	Most recently matured leaves (12+)
3358	Cantaloupe*	Flower to small fruit	Unfurled leaf (5th from end) (12+)
3359	Cantaloupe	Small fruit to harvest	Unfurled leaf (5th from end) (12+)
3360	Carrots	Mid-season	Most recently matured leaves (15+)
3362	Carrots	Mature	Oldest leaf (15+)
3363	Cauliflower	Early growth to pre-heading	Most recently matured leaves (20+)
3364	Cauliflower	12 weeks to mature	Most recently matured leaves (15+)
3365	Cauliflower*	Heading	Most recently matured leaves (15+)
3366	Celery	6-week old plants	Petiole of recently fully developed leaf (12+)
3367	Celery*	Mature	Recent fully developed leaf (12+)
3368	Collards	Mid-season	Recent fully developed leaf (12+)
3437	Collards	Harvest	Most recently matured leaf (15+)
3369	Cress	Summer	Fully expanded leaves (40+)
3370	Cucumber	Flower to small fruit	Recent fully developed leaf (12+)
3371	Cucumber*	Small fruit to harvest	Recent fully developed leaf (12+)
3372	Cucumber, Greenhouse	Weekly intervals starting before first flowering	Most recently matured leaves (10+)
3432	Cucumber, Seedless	First flowering	Most recently matured leaves (10+)
3338	Chicory/Endive/Escarole	8 leaf stage	Oldest leaves (25+)
3602	Chicory/Endive/Escarole	Mature plant, non-flowering	Oldest leaves (25+)
3373	Eggplant	Flower to small fruit	Blades from most recent fully developed leaves (12+)
3374	Garlic	Pre-bulbing	Recent fully developed leaf (12+)
3375	Garlic*	Bulbing	Recent fully developed leaf (12+)
3376	Garlic	Post-bulbing	Recent fully developed leaf (12+)
3377	Greens	Summer	Blades from most recent fully developed leaves (20+)





3378	Horseradish	Through growing season	Recently mature blades with midribs (12+)
3765	Jicama	Root enlargement	Recent fully developed leaf (60+)
3379	Kale	Mid-season	Recent fully developed leaf (15+)
3380	Kale, Chinese	8-leaf stage	Most recently matured leaves (15+)
3381	Kale, Chinese	Mature	Fully expanded leaves (12+)
3146	Leeks	Mid-season to maturity	Whole tops green portion (12+)
3382	Lettuce, Boston*	8 leaf stage	Oldest leaf (12+)
3383	Lettuce, Boston	Mature	Recent fully developed leaf (20+)
3385	Lettuce, Iceberg*	Heading	Leaves from mature heads (12+)
3384	Lettuce, Iceberg	Mature	Wrapper leaves (12+)
3766	Lettuce, Romaine	8-leaf stage	Wrapper leaves (15+)
3386	Lettuce, Romaine	Mature	Wrapper leaves (12+)
3387	Lettuce, Greenhouse	2 week intervals	Most recently matured leaves (10+)
3628	Lettuce, Midrib NO3-N	4 leaves through Pre-Harvest	Youngest fully sized leaves-Mid ribs only (50+)
3433	Melon, Honeydew	Flower to small fruit	Unfurled leaf (5th from end) (12+)
3434	Melon, Honeydew	Small fruit to harvest	Unfurled leaf (5th from end) (12+)
3388	Muskmelon	12-inch vines	Most recently matured leaves (10+)
3389	Muskmelon*	Early fruit set	Most recently matured leaves (10+)
3444	Mustard greens	Summer	Recent fully developed leaf (20+)
3390	Okra	Early-flowering	Most recently matured leaves (20+)
3391	Onion*	1/3-1/2 grown	Whole tops, green portion (12+)
3392	Onion	1/2 to maturity	Recent fully developed leaf (12+)
3393	Onion	Mature	Whole top (12+)
3744	Onion - Univ of CA	Early season (pre-bulbing)	Tallest leaf (25+)
3745	Onion - Univ of CA	Mid season (bulbing)	Tallest leaf (25+)
3746	Onion - Univ of CA	Late season (post-bulbing)	Tallest leaf (25+)
3615	Onion - West. Fert. Hand 9th ed	Early bulbing	Tallest leaf (25+)
3394	Onion, Vidalia	Prior to bulb enlargement	Recent fully developed leaf (12+)
3395	Peas, Black-eye/Southern/Cow	Early bloom	Most recent fully-developed trifoliolate leaves (12+)
3396	Peas, English	First bloom	Most recent fully-developed leaflets (50+)
3398	Peas, Sugar	Summer	Blades from fully expanded leaves (50+)
3436	Peppers, Bell or green	Prior to bloom	Recent fully developed leaf (25+)
3399	Peppers, *Bell or green	First bloom to fruit set	Recent fully developed leaf (25+)
3435	Peppers, Bell or green	Early fruit set	Recent fully developed leaf (25+)
3400	Peppers, Bell or green	Fruit set to mature	Mature leaves from new growth (25+)
3474	Peppers, Habanero	Prior to bloom	Recent fully developed leaf (25+)
3475	Peppers, Habanero*	First bloom to fruit set	Recent fully developed leaf (25+)
3476	Peppers, Habanero	Early fruit set	Recent fully developed leaf (25+)
3477	Peppers, Habanero	Fruit set to mature	Mature leaves from new growth (25+)
3470	Peppers, Jalapeno	Prior to bloom	Recent fully developed leaf (25+)
3471	Peppers, Jalapeno	First bloom to fruit set	Recent fully developed leaf (25+)
3472	Peppers, Jalapeno	Early fruit set	Recent fully developed leaf (25+)
3473	Peppers, Jalapeno	Fruit set to mature	Mature leaves from new growth (25+)
3478	Peppers, Sweet	Prior to bloom	Recent fully developed leaf (25+)
3479	Peppers, Sweet*	First bloom to fruit set	Recent fully developed leaf (25+)
3480	Peppers, Sweet	Early fruit set	Recent fully developed leaf (25+)
3481	Peppers, Sweet	Fruit set to mature	Mature leaves from new growth (25+)
3401	Potato*	Plants 30 cm tall	Recent fully developed leaf (25+)
3402	Potato	Tuber 1/2 grown	Recent fully developed leaf (25+)
3588	Potato	First blossom	Recent fully developed leaf (25+)
3589	Potato	Maturity	Recent fully developed leaf (25+)
3574	Potato petiole NO3-N only	Emergence through tuberization	Petioles most recent mature leaves (45+)
3575	Potato petiole NO3-N only	Tuberization	Petioles most recent mature leaves (45+)
3576	Potato petiole NO3-N only	Early tuber bulking	Petioles most recent mature leaves (45+)
3577	Potato petiole NO3-N only	Late tuber bulking	Petioles most recent mature leaves (45+)
3578	Potato petiole NO3-N only	Maturation	Petioles most recent mature leaves (45+)
3675	Potato petiole NO3-N only - Wisconsin	30 days after emergence	Petioles most recent mature leaves (45+)
3676	Potato petiole NO3-N only - Wisconsin	40 days after emergence	Petioles most recent mature leaves (45+)
3677	Potato petiole NO3-N only - Wisconsin	50 days after emergence	Petioles most recent mature leaves (45+)
3678	Potato petiole NO3-N only - Wisconsin	60 days after emergence	Petioles most recent mature leaves (45+)
3679	Potato petiole NO3-N only - Wisconsin	70 days after emergence	Petioles most recent mature leaves (45+)
3403	Pumpkin / Winter squash	Mid-season	Mature leaves from new growth (12+)
3601	Radicchio	Mid-season to maturity	Oldest leaves (25+)
3406	Radish	Mid-season	Recent fully developed leaf (30+)
3407	Rhubarb	Summer	Recent fully developed leaf (10+)
3408	Spinach	30-50 days old	Recent fully developed leaf (15+)
3409	Spinach*	Mature plants	Recent fully developed leaf (15+)
3410	Spinach, Greenhouse	2-week intervals	Most recently matured leaves (10+)
3411	Squash, Summer	Mid-season	Blades from most recent-fully developed leaves (12+)
3412	Sweet Corn	6-10" tall	Unfurled leaf, 5th from tip (10+)
3413	Sweet Corn	10-15" tall	Unfurled leaf, 5th from tip (10+)



3414	Sweet Corn	7-8 weeks through start of tassel	Unfurled leaf, 5th from tip (10+)
3415	Sweet Corn*	Full tassel to silk	Unfurled leaf, 5th from tip (10+)
3416	Sweet Corn	End of silk	Unfurled leaf, 5th from tip (10+)
3438	Sweet Potato	Early vining	Recent fully developed leaf (15+)
3417	Sweet Potato*	Mid-season before root enlargement	Recent fully developed leaf (15+)
3439	Sweet Potato	Root enlargement	Recent fully developed leaf (15+)
3440	Sweet Potato	Just before harvest	Recent fully developed leaf (15+)
3613	Swiss chard	1 month old	Most recently matured leaves (30+)
3614	Swiss chard	Mature	Most recently matured leaves (30+)
3418	Tomato	Mid- bloom 1st cluster	Leaf petioles opposite or below top flower cluster (12+)
3419	Tomato	Mid- bloom 2nd cluster	Leaf petioles opposite or below top flower cluster (12+)
3420	Tomato	Mid- bloom 3rd cluster	Leaf petioles opposite or below top flower cluster (12+)
3421	Tomato	Mid- bloom 4th cluster	Leaf petioles opposite or below top flower cluster (12+)
3422	Tomato	Mid- bloom 5th cluster	Leaf petioles opposite or below top flower cluster (12+)
3423	Tomato	Mid- bloom 6th cluster	Leaf petioles opposite or below top flower cluster (12+)
3424	Tomato*	Mid-bloom	Compound leaves adjacent top inflorescences (15+)
3425	Tomato	Initial fruit	Compound leaves opposite top cluster (15+)
3426	Tomato	Mature	Compound leaves opposite top cluster (15+)
3445	Tomato, Cherry	First flower	Leaf petioles opposite or below top flower cluster (12+)
3427	Tomato greenhouse	Weekly intervals starting 2 weeks before flowering	Most recently matured leaves (10+)
3446	Tomato, Roma	First flower	Leaf petioles opposite or below top flower cluster (12+)
3447	Tomato, Round	First flower	Leaf petioles opposite or below top flower cluster (12+)
3448	Tomato, Tomatillo	First flower	Leaf petioles opposite or below top flower cluster (12+)
3428	Tomato, Trellis	2-week intervals starting 2 weeks before flowering	Most recently matured leaves (10+)
3441	Turnip greens	Mid-season	Most recently matured leaves (12+)
3631	Watercress	Middle of growing season	Mature leaves from new growth (1 pint)
3429	Watermelon	First flower	Most recently matured leaves (25+)
3430	Watermelon*	Layby	Most recently matured leaves (25+)
3442	Watermelon	First fruit	Most recently matured leaves (25+)
3443	Watermelon	Harvest stage	Most recently matured leaves (25+)
3496	Winter Greens	Mid-season	Most recently matured leaves (25+)
3431	Zucchini	Mature plants non-fruiting	Most recently matured leaves (12+)

**Woody Ornamental Shrubs**

3303	Abelia, Glossy	Summer	2-3" terminal cuttings (30+)
3450	Azalea	Mid-season	Mature leaves from new summer growth (40+)
3538	Beauty berry, American	Summer	Mature leaves from new summer growth (40+)
3451	Boxwood, Common	Summer	2-3" terminal cuttings (30+)
3466	Boxwood, Korean Hybrid	Summer	2-3" terminal cuttings (30+)
3553	Boxwood, Winter Gem	Summer	2-3" terminal cuttings (30+)
3725	Butterfly Bush	Summer	Most recently matured leaves (50+)
3463	Camellia	Summer	Most recently matured leaves (30+)
3585	Dodonaea	Summer	Most recently matured leaves (65+)
3530	Eugenia spp.	Summer	Most recently matured leaves (80+)
3452	Euonymus, variegated	Summer	Most recently matured leaves (30+)
3517	Gardenia, common	Summer	Most recently matured leaves (30+)
3453	Hawthorn, Indian	Summer	Most recently matured leaves (30+)
3462	Holly, American	Summer	Most recently matured leaves (30+)
3454	Holly, Buford	Summer	2-3" terminal cuttings (25+)
3461	Holly, Nellie Stevens	Summer	Most recently matured leaves (30+)
3455	Holly, Yaupon	Summer	2-3" terminal cuttings (30+)
3579	Lantana	Summer	Most recently fully developed leaves (1 pint)
3304	Laurel, English	Summer	Mature leaves from new summer growth (40+)
3467	Laurel, Mountain	Summer	Most recently matured leaves (25+)
3456	Ligustrum	Summer	Most recently matured leaves (25+)
3465	Loropetalum, Chinese	Summer	2-3" terminal cuttings (30+)
3464	Nandina domestica - Heavenly bamboo	New summers growth	Most recently matured leaves (20+)
3460	Pittosporum	Summer	Most recently matured leaves (40+)
3457	Photinia, Red Top	Summer	Most recently matured leaves (25+)
3654	Pieris	Summer	2-3" terminal cuttings (30+)
3459	Privet	Summer	2-3" terminal cuttings (30+)
3658	Rhododendrum	Summer	Mature leaves from new summer growth (40+)
3529	Spirea	Summer	2-3" terminal cuttings (30+)
3332	Strawberry tree, Dwarf	Summer	30 mature leaves from new growth
3549	Tea Olive	Summer	Most recently matured leaves (35+)
3458	Viburnum	Summer	Most recently matured leaves (35+)

References are available on request.

Ratings are available for many other plants not listed. If you have plants not listed, please call the lab.