









## 1947 - 2022

## 75 years of passion, between tradition & innovation!



Welcome to the new edition of our catalogue "The Art of Flower Meadows". This year, Graines Bertrand is celebrating its 75<sup>th</sup> springtime in style! Our production model rooted in the territory, in the open field and with respect for natural cycles, is more relevant than ever after the global crisis we have faced. Our production site in Longué-Jumelles, in the Loire Valley, employs 15 people and provides work for nearly 150 farmers-multipliers under contract in the western region of France and in the Rhône Valley. In the year 2021, we broke our tonnage record with 80 tons of seed produced to meet the demand, which is currently exceptional.

Sowing flower meadows, as you know, is an innovative solution for bloom and re-vegetation that responds to our fellow citizens' need for nature as well as the issues raised by the new zero-pesticide order in a relevant and efficient way. The production method for these seeds requires little energy, and the same is true of the preservation of the seeds and the use of the mixes on the ground. No greenhouse, no potting soil, no plastic pots, for a result worthy of a traditional flower display, thanks to our blends which are tested and improved every year.

To go even further, after 3 years of work, we are now in a position to offer you a new range of seed mixes produced through 100% organic methods, which can be found on page 13. We are also pursuing our propagations of indigenous flower seeds under the Végétal Local® brand. This is a long and difficult task whose results we hope to be able to share with you in the next edition of this catalogue!

We thank you for your loyalty and, as always, we will be delighted to advise you and direct you to our regional distributors.

Your Graines BERTRAND team

#### **OPEN DAYS**

In September 2022, we are inviting our customers to our field days for a special anniversary edition! The dates will be announced on our website.



#### **ORGANIC AGRICULTURE**

Bertrand is the largest organic flower seed producer in France and perhaps beyond! We explain more on page 12!



#### **VÉGÉTAL LOCAL®**

As the beneficiary of the collective brand Végétal Local® since its creation in 2015, we are in the pre-propagation stage of seeds of herbaceous species originating from the Southern Parisian Basin zone.











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ALL OUR FLOWERS

Discover also all our Flower Meadows on our website :

www.bertrand-flowers.com

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## Our profession: **PRODUCE QUALITY SEEDS**



French producer since 1947!

It was in Angers, in 1947, that two passionate brothers created their company selling flower seeds. At that time, this choice showed Bertrand's audacity: to abandon the attractive market of vegetable seeds in order to focus on a speciality: the production of flower seeds, a just emerging market.

Located in the heart of the Anjou region, the world's biggest seed production site, their company has accumulated 75 years of experience and know-how which today has earned "Graines Bertrand" a reputation for quality in France and abroad. In 2016, Bertrand became a subsidiary of the Dutch company EconSeeds, which then relocated most of its production in France and opened up new export markets for Bertrand seeds.





## Control the quality of the products **PRODUCTION**

- · 600 variety multiplication contracts per year
- 150 farmers-multipliers
- · 380 ha of seed plants monitored by our technicians



## Keep and identify each seed **STORAGE**

- 1500 varieties stored under controlled humidity and temperature conditions
- · Maintaining the intrinsic qualities of the seed
- · Identification of each batch





## Our passion:

## THE ART OF FLOWER MEADOWS



Evolution of the "Hardy Flowers" mix



Thanks to its expertise as a flower seeds producer, Graines Bertrand has been creating flower meadows for 60 years, constantly seeking the most ingenious and harmonious combinations. The passion behind the birth of a new blend of flower seeds is just as inspiring as the winemaker's passion who, after the care given to his grapevines, will combine his juices with perfection for his new vintage!

The diversity of species, including some quite surprising ones, is sure to make a lively change! The contrasting colours, heights and growth habits also make for an atmosphere that is far different from that of traditional flowerbeds. But it is in particular the everyday changes in the flower mix that create a peaceful and natural ambience, which is always colourful and cannot possibly leave the observer indifferent.



## Pioneer committed to biodiversity

The first Bertrand flower mixes were created and marketed in 1963. In 1999, anticipating the emerging trend of low-input bloom, a new development program was launched which would culminate in the publication of the first catalogue entirely dedicated to flower mixes in 2004 called "Guide to alternative practices" [Guide des pratiques alternatives].



Through the experience of Bertrand's technicians and with the help of numerous partners, the mixes have progressively become more sophisticated to help address the challenges of sustainable development. Today, the usefulness of flower mixes to encourage biodiversity has been demonstrated by scientists and ecologists, and our latest creations provide relevant solutions to aid the switch to zero use of pesticides (France's "zéro phyto" programme) in communities.

## Our commitment: years of testing to guarantee our offering

By producing in France, we can monitor our crops as closely as possible and obtain plants that are adapted to the european climate. We select the "elite" seed plants (or "basis seeds") on our 2 Naudières and Bricardières farms, which are then entrusted to a network of farmersmultipliers based in the greater Centre-Val de Loire region.

Flower mixes are only marketed after years of full-scale testing. Each year, our test site presents all 100 compositions described in this catalogue and allows us to study and test our new arrangements. From mid-August to the end of September, you can visit this test site by making an appointment: don't hesitate to come and look for ideas and tips!







# Inspiration book City centre

PARKS AND GARDENS, ROUNDABOUTS, PRESTIGIOUS MONUMENTS









## Inspiration book Suburban Areas



DECORATION FOR ROADSIDES, INDUSTRIAL ZONES, AND MORE

The Landscapers p.35

The Fallow Mixtures 0.59















# Inspiration book -Zero Pesticide

AT THE FOOT OF WALLS OR TREES, CEMETERIES, PERMEABLE SURFACES









"Flowers for Everywhere" in Faye d'Anjou (49)

## Inspiration book Biodiversity



PRESERVING WILDLIFE, PROTECTING CROPS ...

The Ecosystems p.51

















# 

# Our production of organic seeds











Established in Maine-et-Loire since 1947, in the heart of the top seed production basin in Europe and one of France's most dynamic regions in organic agriculture, what could be more natural than for Bertrand to convert a part of its production?

Thanks to our network of 150 farmersmultipliers in the greater western region of France, we are very proud to be able to offer you 40 varieties of locally produced, certified organic flowers and **6 mixes** of useful, melliferous, or edible flowers.

Our unique expertise in flower mixes and our roots as a producer thus allow us to offer diversified mixes of unparalleled quality, at last compatible with organic agriculture!

40

33

5.5

15







#### **BERTRAND** is committed to local

#### Support French production that respects the environment with Graines Bertrand!

The pioneering flower meadow brand now offers 6 of its best formulas, produced using 100% organic seed, thanks to its network of 150 partner farmers in the greater western region.

**SPRING SOWING** March to June

**DENSITY OF SOWING** 

 $1 \text{ to } 5 \text{ g/m}^2$ 

**FLOWERING IN SUMMER** 

6 to 12 weeks after sowing

**TO BE RENEWED EVERY YEAR** 

on fresh soil





BI08649

#### **Edible** Flowers **ORGANIC**



A cheerful edible mix of flowers and aromatic herbs, produced using 100% organic seed. Primarily used to adorn dishes, these flowers will also be valuable in elevating summer salads thanks to the lively petal colours and their incredible taste, like borage with its iodic flavour, or nasturtium with its spicy, peppery taste.

Composed of 18 annuals, including: dill, borage, basil, dwarf nasturtium, Centaurea 'Blue Boy', Cosmos Sensation and Bright Lights, common mallow, French marigold, marigold, dwarf sunflower, and more.



April to June



🙀 July to October



90 50-70 cm

The first assortment of



#### Annuals for **Birds** ORGANIC BIO8667

Do not cut back after flowering to allow birds to feed on the seeds throughout the winter: this is natural and aligned with their diet.

Composed of **12 annuals**, including: Safflower, Centaurea 'Blue Boy', poppy, Cosmos Sensation, corn marigold, red flax, tall French marigold, Tithonia, sunflower, and more.



#### Summer Cut Flowers ORGANIC BIO8353

A mix of tall flowers allows the creation of magnificent country-style bouquets all summer long.

Composed of 17 annuals, including: Cornflower, poppy, Cosmos, corncockle, lavatera, nigella, pot marigold, sunflower, zinnia, and more.





#### Fallow for Bees ORGANIC BI20225

An economical and high-performance formula that provides good coverage and long-lasting bloom, compatible with organic agriculture with no dispensation requirement as it is 100% ORGANIC. EFA compatible (Ecological Focus Area).

Composed of **13 annuals**, including: Borage, poppy, Centaurea 'Blue Boy', birdsfoot trefoil, California bluebell, mallow, love-in-a-mist, sainfoin, buckwheat, pot marigold, dwarf sunflower, Persian clover, and more.







40-70 cm



#### Bees and Co.ORGANIC BIO8636

This highly diversified mix of annual flowers rich in nectar and in pollen has the purpose of nourishing wild and domesticated bees over a long period.

Composed of **22 annuals**, including: Centaurea 'Blue Boy', poppy, Cosmos Sensation, Cosmos Bright Lights, corn marigold, viper's-bugloss, lupin, mallow, single French marigold, corn-cockle, sunflower, zinnia, and more.





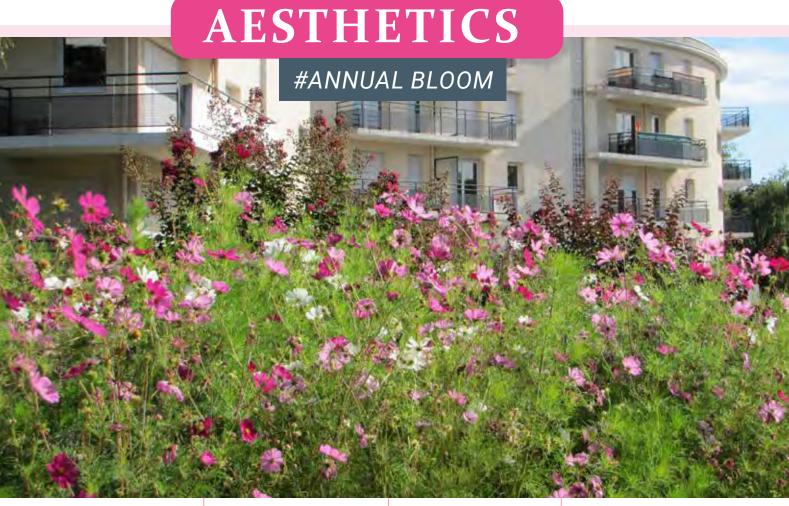


60-100 cm





THE



**SPRING SOWING** 

March to June

**DENSITY OF SOWING** 

2 to 5 g/m<sup>2</sup>

**FLOWERING IN SUMMER** 

6 to 12 weeks after sowing

**TO BE RENEWED EVERY YEAR** 

on fresh soil

**ANNUAL MIXES** 

THE MOST DECORATIVE

**WIDE SELECTION** OF FLORAL SETTINGS,

particularly suitable for urban and periurban blooms such as roundabouts, avenues, close to a castle or a church...

## The Minis

Edges of flowerbeds, planters and window boxes

#### Little Carpet **Ultramarine** MP08711

Composed of **16 annuals**, including: Annual Alyssum, dwarf cornflower, dwarf Morning Glory, California Blubell, Echium, annual Candytuft, Love-ina-Mist, Petunia, and more.





🙀 July - September



20-40 cm



### Little Carpet **Persian** MP08689

Composed of **8 annuals**, including: Mexican Zinnia, Pot Marigold, Cosmos sulphureus, Coreopsis, Eschscholzia...





une - September



20-40 cm





#### Little Carpet For Bees

Composed of 14 annuals and 7 perennials, including: annual alyssum, dwarf Centaurea, sulphur cosmos, lemon balm, various sages, dwarf pot marigold, Reseda.









#### Little Carpet Pearls of Tenderness MP08710

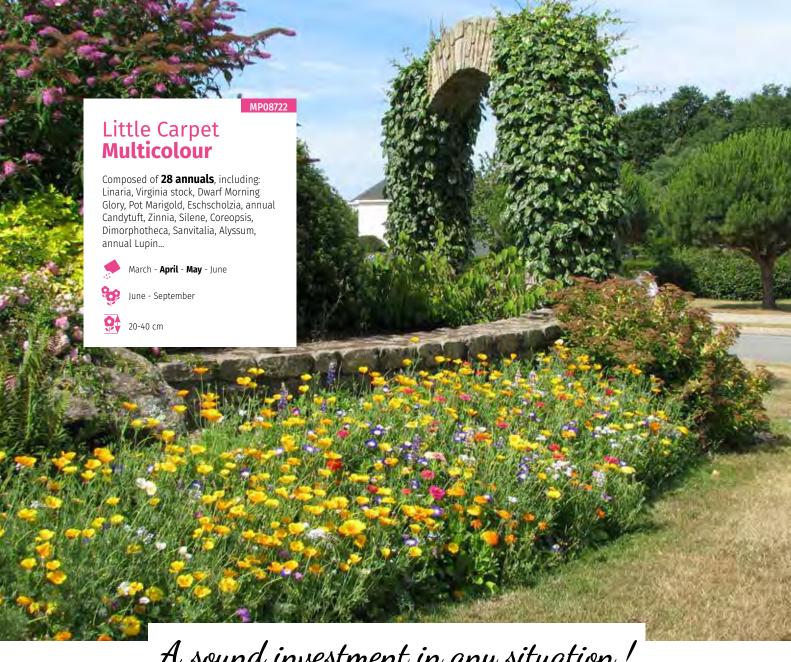
Composed of **16 annuals**, including: Annual Candytuft, Dwarf Morning Glory, Godetia, Rose of Heaven corncockle, Virginia stock, Silene, Nigella...





une - September





A sound investment in any situation!





## Carpet California

Mix inspired by the meadows of California. This highly melliferous mix tolerates dry summers well.

Composed of 16 annuals, including: Clarkia, marigold, dwarf coreopsis, California poppy, baby's breath, Layia, scarlet flax, and more.



March - April - May - June



July - August





## MP08805 Carpet Mediterranean

This multicoloured composition with azure tones enjoys the warmth of the Mediterranean basin's latitudes.

Composed of 15 annuals, including: Zinnia, Marigold, Cornflower, Poppy, Fennel, annual Lupin, Nolana, Purslane...



April - May - June



July - September



90-60 cm

## Carpet **Thousand Lights**

This mix in bold, lively colours withstands both bad weather and heatwaves well.

Composed of 16 annuals, including: Zinnia, marigold, annual flax, California poppy, sulphur cosmos, corncockle, Coreopsis, annual lupin, and more.



April - May - June



July - September



40-60 cm





**Pearls of Tenderness** 

## THE AESTHETICS

## The Fresh Tones

## Carpet **Blue Fields**

An homage to cornflowers, this is our most beautiful blue mix thanks to a touch of white.

Composed of 17 annuals, including: Cornflower, Zinnia, Malope, Flax, Sweet Sultan, Gilia capitata, Ageratum, Dwarf Morning Glory, Ammi Majus, annual Clary, Chinese Hound's Tongue...



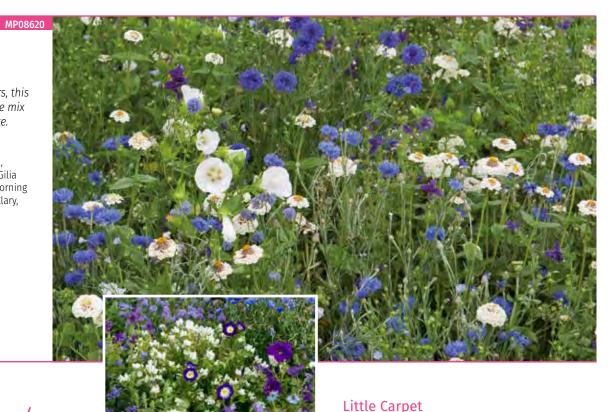
April - **May** - June



July to September



**9** 60-70 cm



Little Carpet **Ultramarine** 



#### Carpet In the Pink

Combining sweetness and strength of character, this mix is a true ode to femininity, as well as a sound investment that has proven its worth since its creation.

Composed of 12 annuals, including: Zinnia, Cosmos, Mallow, Malope, Cow Soapwort, annual Baby's Breath, annual Everlasting Flower, Cleome...



April - **May** - June



July to September



60-100 cm







Carpet Flower Dreams MP20148

## Carpet Pastel Shades MP20193

Composed of **11 annuals**, including: Cleome, cornflower, dwarf Cosmos, annual baby's breath, Malope, common corn-cockle, Phacelia campanularia, statice...



April - May - June



🧱 July to September



40-60 cm



## The Contrasts



MP08864

## Carpet **Loire Valley**

An audacious combination of sweet pink and mustard yellow, in homage to the sweetness of our climate and our region.

Composed of 15 annuals, including: Zinnia, Cosmos, yellow Eschscholzia, African Marigold, Linaria, Marigold, Mallow, Dill, Basil...



April - May - June



July - October



60-100 cm

### Carpet Tricolour MP20147

Composed of **29 annuals**, including: Cornflower, Poppy, Cosmos, Flax, Mallow, Zinnia, annual Candytuft, Cow Soapwort, annual Baby's Breath, annual Coreopsis, Ageratum, Ammi Majus...



April - May - June



July - September



60-80 cm





### Carpet Chambord MP08692

Composed of 24 annuals, including: Marigold, Zinnia, Sunflower, Dwarf Morning Glory, Cornflower, Coreopsis, Corn Marigold, Echium, Ageratum, Gilia capitata, Flax, Chinese Hound's Tongue...



April - May - June



🙀 July - September



60-80 cm



## The Warm Tones

## Carpet Red & Gold

A contrasting, powerful mix, primarily composed of giant zinnias whose colours are a match for each other.

Composed of **7 annuals**, including: Zinnia, Marigold, annual Coreopsis, Tithonia, African Marigold...



April - May - June



July - September



60-90 cm



#### Carpet Flower Power

Composed of 13 annuals, including: Zinnia, Cosmos sulphureus, Bidens, Yellow Chamomile, French Marigold, Ageratum, Carthamus, Coreopsis...



April - May - June



🤯 June - September







Carpet Orange Flash MP08361

Composed of **6 annuals**: Marigold, Zinnia, Cosmos sulphureus, Cosmos, Sunflower, Corn Marigold.



April - May - June







## Carpet **Mexico**

This rich carpet, composed of species originating in Mexico, is robust and very floral.

Composed of **15 annuals**, including: Coreopsis, sulphur cosmos, firecracker vine, African marigold, sunflower, Tithonia, Zinnia, and more.



April - May - June



June - September



60-100 cm

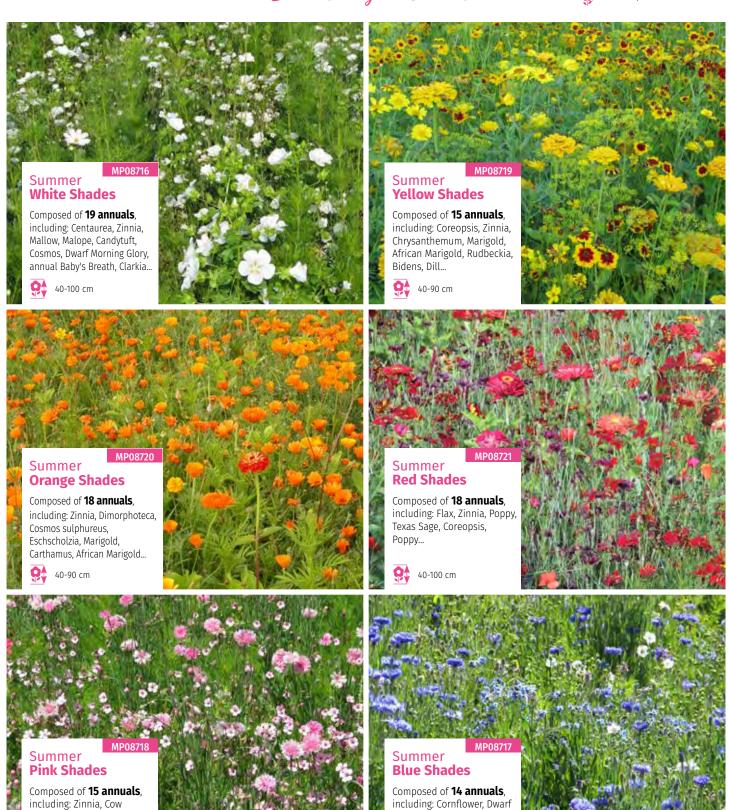




MP08802

## The Main Shades March - April - May - June Blooms in your colours! June - September





Morning Glory, Flax, Gilia capitata, Nigella, Ageratum,

limonium, annual Clary...

40-80 cm

40-100 cm

Soapwort, Cosmos, Mallow,

Malope, Corncockle, Silene, Spiny Spiderflower...





Composed of **34 annuals**, including: Cosmos, Cornflower, Annual flax, Eschscholzia, Cow Soapwort, Virginia stock, Malope, Marigold, Corncockle, annual Alyssum, Silene, annual Poppy, annual Rudbeckia...







40-100 cm



### Summer Multicolour MP08715

Composed of **31 annuals**, including: Cornflower, Annual flax, Malope, Coreopsis, Cosmos Sensation, Cosmos sulphureus, Mallow, Corncockle, Chrysanthemum, Zinnia, Marigold, African Marigold...



April - **May** - June



🧽 July - September



50-80 cm



## The Pickings

### Flowers for **Dry Arrangements**

Now back in the forefront, dried flowers make it possible to create natural and long-lasting compositions.

Composed of **14 annuals**, including: varrow, amaranth, globe amaranth, safflower, strawflower, flax, love-in-amist, larkspur, statice, and more.



April - May - June



July - September



50-70 cm



#### Summer **Cut Flowers**

Ideal for cut flowers.

Composed of **19 annuals**, including: Zinnia, Marigold, Cornflower, Malope, Cosmos, Mallow, annual Sweet Sultan, African Marigold, China Aster, annual Baby's Breath...



April - May - June



July - September



**9** 60-100 cm

BI08353

MP08353

#### Summer **Cut Flowers ORGANIC**



Composed of 17 annuals, including: Cornflower, poppy, Cosmos, corncockle, lavatera, nigella, pot marigold, sunflower, zinnia, and more.



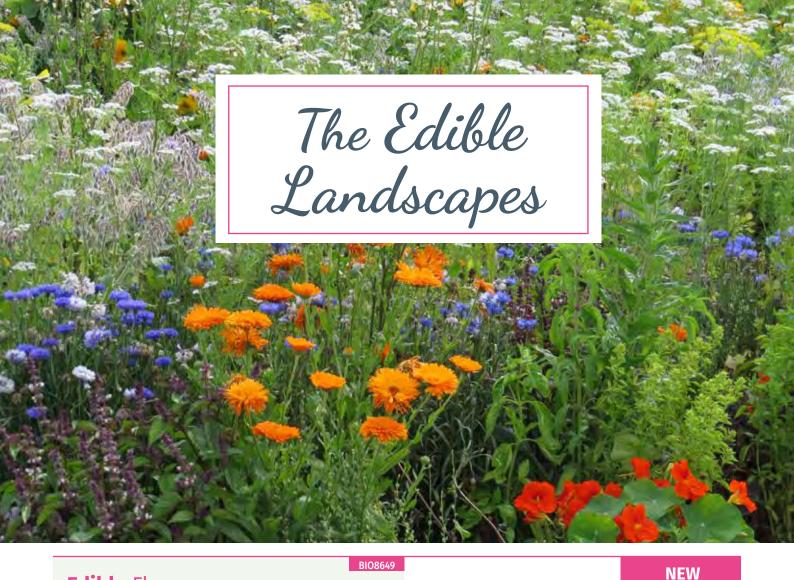
March to June



July to October



60-100 cm



#### **Edible** Flowers **ORGANIC**



A cheerful edible mix of flowers and aromatic herbs, produced using 100% organic agriculture. Primarily used to adorn dishes, these flowers will also be valuable in elevating summer salads thanks to the lively petal colours and their incredible taste, like borage with its iodic flavour, or nasturtium with its spicy, peppery taste.

Composed of 18 annuals, including: dill, borage, basil, dwarf nasturtium, Centaurea 'Blue Boy', Cosmos Sensation and Bright Lights, common mallow, French marigold, marigold, dwarf sunflower, and more.







\$\$ 50-70 cm







**BI01604** Cosmos Sensation mixed



BI07636 Calendula Corniche d'Or



BI04371 French Marigold



BI07601 Calendula Double Mixed



BI03218 Common mallow



BI01109 Centaurea 'Blue Boy'



BI05941 Small burnet



BI01247 Edible chrysanthemum



BI07570 Dwarf sunflower

## The Beneficial Plants

#### **Flowers** for Dyes

Plants that can be made into natural dyes.

Composed of 13 annuals, including: Zinnia, Cosmos sulphureus, Bidens, Yellow Chamomile, French Marigold, Ageratum, Carthamus, Coreopsis...



April - **May** - June



June - September



60-80 cm



MP20146

#### Priester Garden

Mix of aromatic and medicinal plants and edible flowers.

Composed of **15 annuals**, including: Borage, Marigold, Coriander, Fennel, Lemon Balm, Dill, Basil, Nasturtium, Hyssop, Rue...



March - April - May - June



June - September



30-60 cm



### Kick' Mosquito

Original, aromatic, and wonderful, this mix of primarily lemon-scented plants repels mosquitoes.

Composed of **9 annuals**, including: anise, various basils, catmint, and our little secrets...



April - **May** - June June - September



20-40 cm







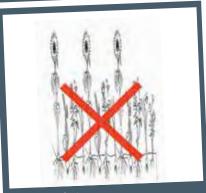
## Climbing Flowers MP08358 Livens up fences and all kinds of supports! Composed of **9 annuals**: Climbing nasturtium, colocynth, Dolichos, morning glory, Mina lobata, Thunbergia, and more. 🙀 July - October > 250 cm NEW



## Sowing density



Between 1 and 5 g/m² Well developed plants = Longer lasting bloom



Above 5 g/m² Plants too crowded = Water and leaf competition

Along with preparing the soil, respecting the sowing density is a key factor for success for this flower mix to take root. Depending on the sowing conditions, the seed density ranges from 1 to 5 grammes per m² for use in spaces. Soil quality and preparation, access to irrigation, and the season of seeding are elements that influence the choice of sowing density. For example, in rock gardens or on unirrigated land, the density will be higher (3 to 4 g/m²).

Conversely, if the sowing period is optimal and the ground is clean and well prepared, the density can be decreased (1 to 2 g/m²) in order to encourage species balance. But be careful, no matter what happens, exceeding 5 g/m² would be wasteful! Too high a density increases competition plants the hetween number decreases the species, in particular the lateflowering ones that bloom in the late season.

Did you know?



1 gram of mix contains approximately 800 seeds on average and can be held in the palm of a hand.









THE



1 to 4 g/m<sup>2</sup> onwards the following years

**OF SOWING** 

**IN AUTUMN** 

**OR IN SPRING** 

MULTI-YEAR MIXES: 2 to 3 years

**EXTENSIVE AREAS** 

2 DIFFERENT RESULTS DEPENDING ON THE SOWING PERIOD (spring or autumn)

from summer onwards when

sown in spring; from spring



**2 TO 3 YEARS** 

## THE LANDSCAPERS

### Flowers of the Countryside

It is the most natural and spontaneous of the flower mixes, evoking memories of flowers from our childhood ...

Composed of 10 annuals and 5 perennials, including: Wild poppy, wild cornflower, corn marigold, wild ox-eye daisy, perennial flax, corncockle, and more.







summer when sown in spring, spring the following years



50-100 cm



## **Hardy** Flowers

The essential mix! This multi-annual mix takes root easily and hardily in all situations: embankments, roadsides, at the foot of walls and/ or trees...

Composed of 10 annuals and 18 perennials, including: Marigold, Eschscholzia, annual Flax, annual Rudbeckia, Poppy, Yellow Chamomile, Thyme, Red Valerian, Meadow Clary, Echinops, Yarrow, Lychnis...



March to June September to November



summer when sown in spring, spring the following years



30-50 cm





MP20194

### Flowers from Harvests

These cornfield companion crops reseed spontaneously if the soil is tilled in winter.

Composed of **13 annuals**, including: Ammi majus, Wild Cornflower, Corn Marigold, Poppy, Common Corncockle, Marigold...

March to June September to October

summer when sown in spring, spring the following years

30-60 cm

### THE LANDSCAPERS

MP08698

#### Meadow Glints

This mix is highly diversified in colours, in somewhat muted tones.

Composed of 16 annuals and 17 perennials, including: Cornflower, Cheiranthus, Corncockle, Wallflower, Virginia Stock, Cow Soapwort, Leucanthemum, Nigella, Marigold, Soapwort, Yarrow, perennial Coreopsis, Iceland Poppy, Sweet William ...



March to June September to November



summer when sown in spring, spring the following years



20-60 cm



#### **Garden** Flowers

MP08713

When sown in autumn, the Garden Flowers mix is perfectly able to withstand the winter.

Composed of 12 biannuals and 21 perennials, including: Centaurea, Dame's Rocket, Sweet William, Corncockle, Lupin, Corn Marigold, Leucanthemum, Candytuft, Marvel of Peru, Poppy, Coreopsis, Flax, Red Valerian, Gaillardia, Yarrow, Foxglove ...





#### Flowers from Nature Flowered Meadows MP08635

This mix is designed to look like a natural country meadow and, above all, encourage biodiversity by providing a supply of wild flowers, especially field companion flowers.

Composed of **9 annuals** and **28 perennials**, including: Silene, Poppy, Common Mallow, Dame's Rocket, Leucanthemum, Cornflower, Bird's-foottrefoil, Lupin, Flax, Lychnis, Liatris, Lythrum, Burnet, Common Corncockle ...









### **Ground-covering** Flowers

One of the shortest flower mixes in the BERTRAND range, in its 2<sup>nd</sup> year. Ideal for re-vegetating zones where visibility should not be impeded.

Composed of **13 annuals** and **9 perennials**, including: Annual Alyssum, perennial Alyssum, Cerastium, dwarf Eschscholzia, Virginia stock, Limnanthes, Linaria, Myosotis, Prunella, Soapwort, Silene ...



March to June September to November



summer when sown in spring, spring the following years



15-25 cm





# The advantages of autumn sowing

#### + EARLY

- Spring flowers
- Possible association with bulbs (more advanced bloom)

#### + EFFICIENT

- On difficult terrain and in hot climates
- Better implantation of perennials
- Winter vegetation cover limits erosion

#### + ECO-FRIENDLY

- Less surface to mow
- Reduced irrigation
  - Seed dose reduced

Sowing in autumn promotes "hardy annuals" (Centaurea, larkspur, poppy, and others) as well as biennials and perennials that don't need hot temperatures to sprout, which is why the result is different from spring sowing, although it is still diversified and balanced thanks to our expertise!

With autumn sowing, bloom takes place earlier, and summer mowing becomes absolutely essential: the best time for it is not long after the peak of bloom, generally towards the end of June or the very beginning of July, before the mix dies back completely.

Discover the mixes that are best adapted to autumn sowing in photographs.



Sample images: "Spring Flowers" (see page 39)





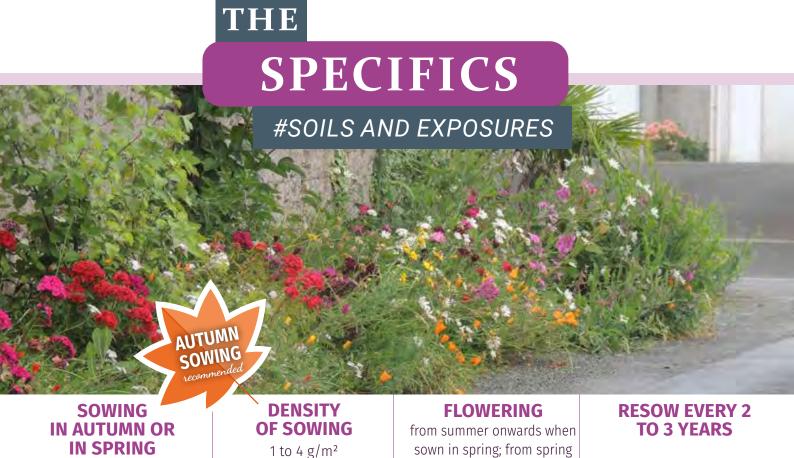












MULTI-YEAR MIXES: 2 to 3 years

onwards the following years

FOR USE IN SPECIFIC SOIL OR EXPOSURE CONDITIONS:

difficult soils, wetlands, roadsides, etc.





#### Flowers from Nature **All-Terrain**

100% wild flowers indigenous to Europe. This very rich and well balanced mix can adapt to all situations, no matter the exposure and the nature of the soil. The annuals occupy the terrain in the first year, while the perennial species that are adapted to the location take root to endure.

MP20184

Composed of 24 annuals and 44 perennials, including: Yarrow, chamomile, cornflower, borage, meadow knapweed, corn marigold, poppy, fennel, ox-eye daisy, flax, mallows, St. John's Wort, corncockle, oregano, burnet saxifrage, meadow clary, silenas, pot marigold, creeping thyme, viper's bugloss, and more.



March to June or September to November



summer when sown in spring, spring the following years



80-100 cm



# for Foot of Walls



## Flowers for Foot of Walls

This mix, ideal for cracks and the foot of walls, is an effective combination of decorative and technical purposes.

Composed of **16 annuals** and **26 perennials**, including: Sweet Alyssum, Silene, Flax, Viola, Cerastium, Valerian, perennial Coreopsis, Stock, Soapwort, Mountain Alyssum, Virginia Stock, Pot Marigold, Daisy, Alyssum saxatile, Nigella, Cheiranthus, Forget-me-not ...



March to June September to November



summer when sown in spring, spring the following years



20-40 cm

### These mixes are also apt for:



Little Carpet Multicolour



**Perennial Dwarf** Varieties



Flowers for Everywhere



**Ground-covering** Flowers



### The Short Mixes

#### **Super Dwarf** Flowers

Very short, robust and versatile mix, ideal for re-vegetating difficult areas while maintaining a well-groomed appearance, e.g. in cemeteries.

Composed of 8 annuals and 19 perennials, including: Dwarf Sweet Alyssum, Purslane, Sanvitalia, Perennial Alyssum, Oregano, Petrorhagia, Wild Thyme, Blue Fescue...



March to June September to November



summer when sown in spring, spring the following years

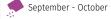


15-30 cm



#### Flush of **Daisies** MP08798

Composed of 5 biannuals and 7 perennials, including: Lawn Daisy, Mountain Alyssum, Cerastium, Nemophila, Virginia Stock, Myosotis, Viola cornuta, perennial Primula ...





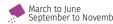






#### Flowers for **Roadsides** MP08765

Composed of 5 annuals and 12 perennials, including: Yarrow, Sweet Alyssum, perennial Flax, Poppy, Mountain Alyssum, Bird'sfoot-trefoil, Cerastium, Eschscholzia, Virginia Stock, Nepeta, Daisy, Anthyllis, Clover ...



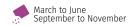






#### Flowers for **Rocky Places** MP08786

Composed of 5 annuals and 15 perennials, including: Alyssum saxatile, Common Corncockle, Virginia Stock, Burnet, Soapwort, Nepeta, Mountain Alyssum, Thyme, Clary Sage, Oregano, St. John's Wort, Anthyllis, Sedum ...



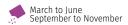






#### Flowers for Sandy and Silty Soils MP08789

Composed of 2 annuals and 14 perennials, including: Sweet Alyssum, Yellow Chamomile, Cerastium, Cheiranthus, Yarrow, Virginia Stock, Nemophila, Maiden Pink, Crimson Clover, Candytuft, Anchusa capensis, Lagurus, Sedum, Thyme, and more.





summer when sown in spring, spring the following years

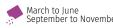




### THE SPECIFICS

#### Flowers for **Shady Places** MP08705

Composed of 12 annuals and 16 perennials, including: Virginia Stock, Balsam, Dame's Rocket, Yarrow, Borage, Sweet Alyssum, Wild Poppy, Common Mallow, Sweet Pea, Foxglove, Aquilegia, Violet, Lobelia, Campanula carpatica ...











#### Flowers from Nature Shade and Lights MP08780

Composed of 23 perennials, including: Perennial Flax, Common Mallow, Common Self-Heal, Agrimony, Foxglove, Dracocephalum, Wild Garlic, Giant Buttercup, Wild Strawberry, Greater Stitchwort, Pendulous Sedge, Canterbury Bells, Granny's bonnet ...





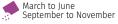


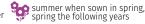




#### Flowers for **Wetlands** MP08819

Composed of 7 annuals and 12 perennials, including: Mallow, Lythrum, Achillea ptarmica, wild Leucanthemum, Common Mallow, Bird's-foottrefoil, annual Alyssum, Yarrow, perennial Flax, perennial Lupin ...









#### Flowers from Nature **Damp Meadows**

Composed of **30 perennials**, including: Dame's Rocket, Musk Mallow, Lythrum, Giant Buttercup, Ragged Robin, Centaurea jacea, Yarrow, Sneezewort, Yellow Chamomile, Foxglove, Common Toadflax, Common Self-Heal ...



March to June September to November



summer when sown in spring, spring the following years





### THE





**SOWING IN AUTUMN** 

**DENSITY OF SOWING** 

 $1 \text{ to } 4 \text{ g/m}^2$ 

**FLOWERING IN SPRING** 

**MAINTENANCE** 

like a flowerbed of perennials

#### **PERENNIAL MIXES:**

last for over 3 years depending on the degree of maintenance

**ROOTING FOR THESE** MIXES IS SLOWER:

several months are required to ensure complete coverage of the site











MP08615

#### **Perennial Dwarf Varieties**

This mix is particularly well-suited for rock gardens and for hardto-reach areas in which heavy equipment cannot be used.

Composed of 20 perennials, including: Alyssum saxatile, Maiden Pink, Mountain Alyssum, Nepeta, dwarf Stock, dwarf Coreopsis, Cerastium, Aubrieta, Campanula carpatica, Arabis, Viola cornuta ...



March to June September to November



from March to July the year



15-25 cm



**Perennial Semi-tall** 

### **Varieties**

Mid-height flowers also bloom the longest.

Composed of 22 perennials, including: Wallflower, Flax, Sweet William, Lupin, Coreopsis, Garden Pinks, Musk Mallow, Carnation, Catananche, Water Avens, Red Valerian, Yarrow ...



March to June September to November



From April to July of the following year



30-60 cm



#### MP08617 **Perennial Tall**

This very varied mix is remarkable for its height and its diversity.

**Varieties** 

Composed of 28 perennials, including: Dame's Rocket, tall Sweet William, Shasta Daisy, Gaura, Achillea filipendulina, Delphinium, Foxglove, Scabiosa, Echinacea ...



March to June September to November

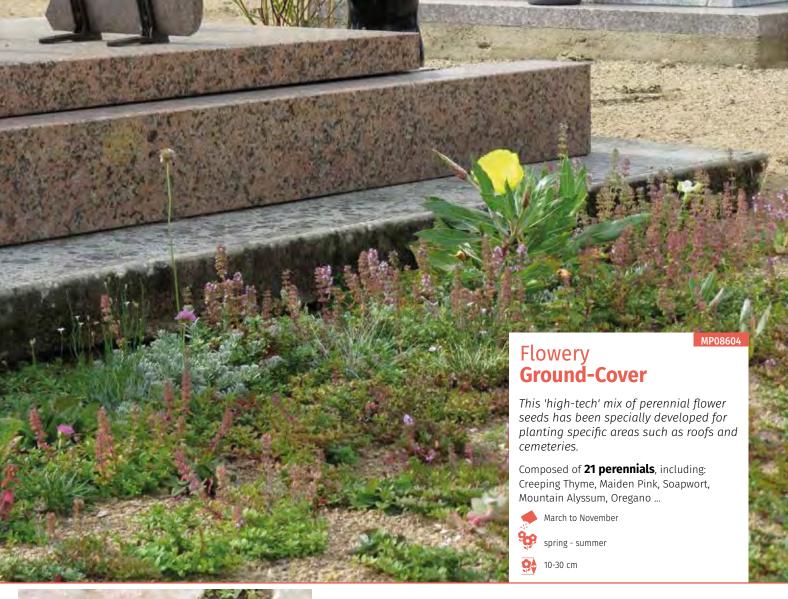


from May to September of the year after sowing



50-100 cm







# The only sustainable, floral & economic solution!

Direct sowing of the **Flowery Ground-Cover** mix is a long-term solution whose cost per m<sup>2</sup> is three times less than that of revegetation with sedum fragments. Enjoy economical, flowering and long-lasting ground cover with Flowery Ground-Cover!





### Attractiveness of Bertrand mixes

### & BENEFICIAL INSECTS



### PURPOSE OF THE FLOR'INSECTES STUDY

It is essential to pay attention to diversity, i.e. the number of species and the population balance in the mixes, in order to have more insight into the "arthropod potential" of the various compositions. This was the purpose of the "Flor'Insectes" lab study carried out on our flower blends. It allows us to continually improve our flower blends. In order to know the potential of our mixes to attract arthropods (which include insects), inventories were carried out using active trapping and by observing them.

#### **RESULTS**

In total, 7231 arthropods were collected, which can be divided into 13 orders and 66 families. 136 genera/species were identified.

#### MAIN CONCLUSION

According to this study and other studies carried out by Flor'insectes, horticultural plants appear to be beneficial for biodiversity and can be used in ecofriendly districts or for other eco-friendly features. It is best to use either mixes containing a combination of garden flowers and wild flowers, or to sow both garden flower mixes and Flowers of Nature mixes in the same area. For example, in order to attract auxiliaries and repel pests, an efficient solution would be to sow both "IPM Flowers & Beneficial Insects" and "Universal Flowers From Nature" in the same area. Mixes with the greatest varietal diversity are the most likely to encourage the development of auxiliary fauna.

#### **Collection method**

For the insect inventory, we used:

- A camera, for 5 minutes, to observe the pollinators and other flying insects.
- A hand net to collect flying insects, by sweeping the net 20 times.
- A fuel-powered vacuum collector, used for 1 min 30 s to collect the small and crawling insects.





Flor'Insectes www.florinsectes.com Applied research Laboratory on the link between Landscape and Biodiversity

#### TYPES OF INSECTS OBSERVED:

- Predators are insects that feed on other insects.
- Pollinators gather pollen from flowers to feed themselves, transport pollen from one flower to another and ensure pollination.
- Parasitoidal insects develop on or inside of other "host" insects, causing them to die.
- Phytophagous insects feed on plants. They can therefore be either beneficial or harmful.
- Detritivores feed on all sorts of organic waste, making it available to the soil microflora.



### THE

### **ECOSYSTEMS**



#### #BIODIVERSITY

These flower mixes are veritable professional tools for stakeholders in the environmental sector and in agriculture. They are the fruit of research that has resulted in the association of various plant species, not only for their aesthetic appeal, but also for their utility with regard to specific targets.

These beneficial mixes all offer **technical solutions for sustainable development, biodiversity** and garden pest control.



### THE ECOSYSTEMS

# Agriculture

#### Repel Nematodes MP08824

Used in fallow land (10 to 15 kg/ha). To be effective, it must remain in place for 3-4 months and the debris must be buried.

Composed of French marigolds.









#### Flowers from Nature MP08782

**IPM** (Integrated Pest Management)

Composed of **12 annuals** and **9 perennials**, including: Marigold, Cornflower, Coriander, annual Alyssum, Basil, Echium, annual Coreopsis, Common Sage, Hyssop, Tansy ...



April to November



summer when sown in spring, spring the following years



94 40-60 cm





#### Flowers for Orchard & Vineyards MP08796

Composed of 9 annuals and 3 perennials, including: Sweet Alyssum, Flax, Coriander, Eschscholzia, Nigella, Virginia Stock, Cow Soapwort ...



March to June

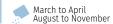






#### **Inter-row Compact** Mixture

Composed of **6 annuals** and **11 perennials**, including: Marigold, Sweet Alyssum, Parsley, Chamomile, Coriander, Alpine Forget-me-not, Chervil, Yarrow, Nepeta ...







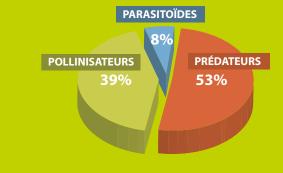
# Flower strips for Market Gardening **Beneficial Insects and Pollinators**

This mix is dedicated to "functional biodiversity", i.e. services rendered to agriculture by the ecosystem in which it is found. Sown in flower strips between crops or on field edges, this mix attracts beneficial insects (lacewings, hoverflies, ladybugs, etc.) and pollinators (Hymenoptera, bees, hoverflies, etc.) from the primary market-garden crops, in order to optimise their yield while respecting the environment.

Technical tip: Spread out the flowering and thus the attractiveness of the mix by staggering your sowing every month from March to June over several plots. Sow 2 to 3 grammes/m<sup>2</sup> on plots smaller than 1000 m<sup>2</sup>. Larger than that, sow 10 to 15 kg/ha.



Insect population structure according to their ecological role observed on the "OXIPOLI® Annual" mix sown in strips in a squash crop on 4 August 2016 during the flowering peak. (Credit: Flor-Insectes - Johanna Villenave-Chasset)



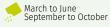
#### OXIPOLI® Annual MP20223

Annual mix composed of **21 annuals** including sweet alyssum, dill, Centaurea, vipers-bugloss (Echium), flax, and more.



#### OXIPOLI® Annual ORGANIC BI20223 Composed of 22 annuals, including: Dill, Centaurea cornflower, poppy,

viper's-bugloss, lavatera, corncockle, French marigold, buckwheat, marigold, sunflower, and more.



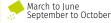






#### OXIPOLI® Pluriannual

Composed of 23 annuals and 9 perennials, including: Alyssum, Ammi, dill, chamomile, various Centaureas, ox-eye daisy, poppy, perennial flax, Sweet William, oregano, burnet saxifrage, marigold, sunflower, and more.





summer when sown in spring, spring the following years





### THE ECOSYSTEMS

### Bees

#### Bees & Co.

Beyond its richness in melliferous flowers, this annual mix has the advantage of being both decorative and competitive.

Composed of **26 annuals**, including: Maritime Alyssum, Cornflower, Marvel of Peru, Corn Marigold, Phacelia, Cosmos, Echium, annual lupin, common corncockle, weld, and more.



March to June



940-70 cm

#### **Bees & Co. ORGANIC**

Composed of **22 annuals**, including: Centaurea 'Blue Boy', poppy, Cosmos Sensation, Cosmos Bright Lights, corn marigold, viper's bugloss, lupin, mallow, French marigold, corncockle, sunflower, zinnia, and more.



March to June



👣 June to October



90-100 cm





### Flowers from Nature

MP20309

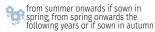
#### Bees

Composed of "true" wild flowers, from our local ecotype when possible, this mix will provide food for bees and a wide diversity of pollinating insects for several years.

Composed of 13 annuals and 35 perennials, including: Yarrow\*, common teasel, Centaurea\*, poppy\*, foxglove\*, Ox-eye Daisy\*, Birdfoot trefoil, mallow, St. John's wort\*, corn-cockle, various Umbelliferae, oregano, meadow clary\*, Silene\*, viper's bugloss\*.



March to April August to November







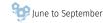
\*Végétal Local® labelled species if available

#### Little Carpet MP08612 for Bees

This short mix, which is beneficial for insects, is a blend of highly colourful dwarf melliferous plants.

Composed of 14 annuals and 7 perennials, including: Annual alyssum, Reseda, dwarf Centaurea, annual savory, dwarf cosmos, dwarf poppy, basil, lemon balm, sage, and more.











#### **Nourishing Flowers** for Bees

This nourishing mix, rich in pollen and in nectar, provides a true concentrate of food resources to strengthen the bees' metabolism. Can be sown at regular intervals, bloom after 9 to 11 weeks.

#### Annual mix MP20224

Composed of 25 annual, including cornflower, viper's-bugloss, reseda, marigold, and more.







#### **Multi-annual mix**

MP20242

Composed of 20 annuals, 29 perennials, including, in addition to the annual varieties, Columbines, lavenders, bird's-foot-trefoils, Nepetas, thymes.... for flowering spread out over the year.



September to October





90-100 cm



### Insects and Birds



#### **Annual Flowers** for Birds

This mix attracts grain-eating birds, from house sparrows to tits, chaffinches, and goldfinches, whose numbers are declining drastically. The mix should not be harvested after flowering to allow birds to feed on the seeds throughout the winter: this is natural and aligned with their diet.

Composed of **16 annuals**, including: Flax, Cornflower, Millet, Corn Marigold, Sunflower, Cosmos bipinnatus, Common Corncockle, Tithonia, and more.



March to June



June to October



60-100 cm

#### **Annual Flowers** for Birds ORGANIC

Composed of 12 annuals, including: Safflower, Centaurea 'Blue Boy', poppy, Cosmos Sensation, corn marigold, spring flax, simple French marigold, Tithonia, sunflower, and more.



March to June



June to October



60-100 cm



#### **Perennial Flowers** for Birds

The birds will get the benefit of the flowers the year following sowing, and then the seeds. You can mow this mix in December or January.

Composed of 18 perennials, including: Cheiranthus, perennial Flax, Wallflower, Lunaria, Soapwort, Alpine Forget-me-not, Silene ...



August to November



April to July



20-80 cm





### Flowers from Nature

**Butterflies** 

Wild plants to feed butterflies and caterpillars.

Composed of 4 annuals and 21 perennials, including: Cornflower, Catnip, Fennel, Echium, Teasel, Achillea, Lythrum, Bird's-foot-trefoil, Foxglove, Bladder Campion, Viper's Bugloss, Lychnis flos-coculi ...



August to November



from Spring





#### Flowers for Ladybirds MP08611

These plants, such as Centaureas, attract ladybirds.

Composed of 15 annuals and 7 perennials, including: Yarrow, chamomile, borage, wild carrot, Coreopsis Cosmos, various Centaureas, red flax, viper's-bugloss, and more.



March - April - May - June

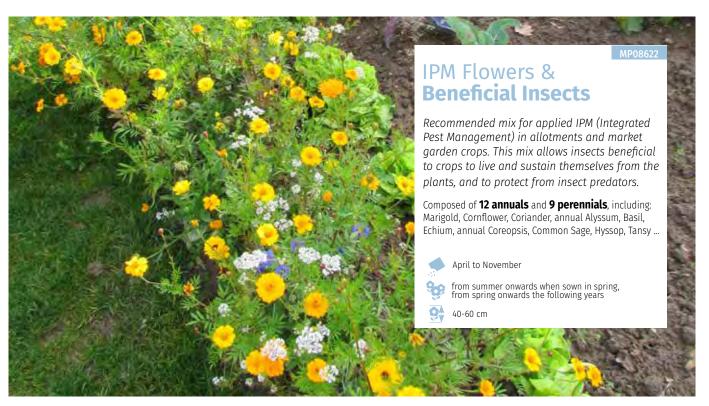


June to October





# Home-gardening



These mixes "simultaneously" attract and repel harmful pests with the aim of driving them away by creating confusion. Just like the lunar calendar, their effectiveness is not scientifically proven but one thing is certain: flowers in an allotment provide an undeniable diversity and contribute to a balanced environment that favours the natural regulation of insect populations.



### Repel **Aphids**

MP08821

Composed of 10 annuals and 5 perennials, including: Yarrow, annual alyssum, nasturtium, French marigold, marigold, common rue, savory, thyme, and more.



April - May - June



July to September



30-50 cm



#### Repel Slugs

Composed of 8 annuals and 5 perennials, including: Yarrow, annual alyssum, borage, nasturtium, black caraway, French marigold, poppy, Mexican zinnia, and more.



April - **May** - June



July to September



30-60 cm



#### Repel Potato Beetles MP08823

Composed of 5 annuals and 1 perennial, including: coriander, red flax, perennial flax, various French marigolds, savory, and more.



April - May - June



June to September



40-60 cm



### THE

### FALLOW MIXTURES

**#ECONOMICAL CHOICES** 



**SOWING IN AUTUMN OR SPRING** 

#### **SOWING DENSITY**

for agricultural use: 0.4 to 0.6 g/m<sup>2</sup> in public green spaces: 0.8 to 1.5 g/m<sup>2</sup>

### AN ECONOMICAL ANSWER

for adding bloom to large areas



### THE FALLOW MIXTURES

#### Fallow **Short Annuals**

MP08644

Composed of **9 annuals**, including: Marigold, Zinnia, annual Flax, Cornflower, Eschscholzia, Cow Soapwort...



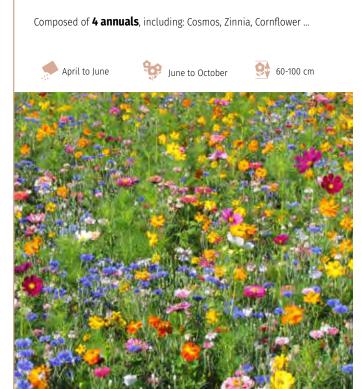


June to October



ႈ 30-60 cm





Fallow Tall Annuals



#### Fallow for Bees BI20225 **ORGANIC**



Composed of 13 annuals, including: Borage, poppy, Centaurea 'Blue Boy', birdsfoot trefoil, Phacelia, mallow, love-in-a-mist, sainfoin, buckwheat, marigold, dwarf sunflower, Persian clover, and more.



March to July

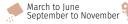


90-70 cm



#### Flowers from Nature Universal

Composed of 10 annuals and 5 perennials, including: Wild Poppy, wild Cornflower, Corn Marigold, wild Leucanthemum, perennial Flax, Common Corn-cockle ...



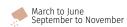








Composed of **8 annuals** and **5 perennials**, including: Marigold, Cosmos, Cornflower, Flax, Common Corncockle, Wallflower ...



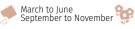
from summer onwards when sown in spring, from spring onwards the following years





#### Fallow **Sowing in Autumn**

Composed of **5 annuals** and **5 perennials**, including: Dame's Rocket, annual Delphinium, perennial Flax, Leucanthemum, Cheiranthus ...









### from $m{A}$ to $m{Z}$

# THE Flowers in pictures





# THE Flowers in pictures



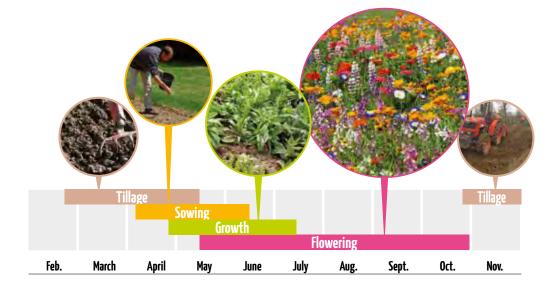


## **Sowing Guide**

#### Mix cycles ANNUAL

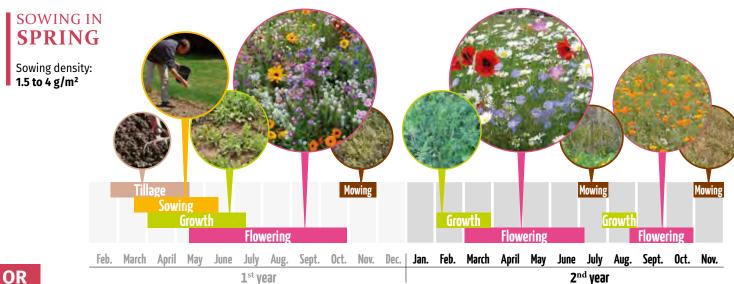
**SOWING IN SPRING** 

Sowing density: 2 to 5 g/m<sup>2</sup>



#### Mix cycles

#### JAL OR PERENNIAL



OR

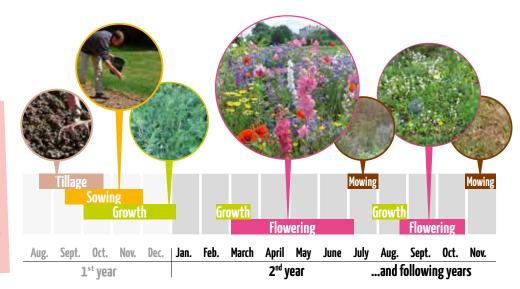
Focus

#### **SOWING** IN AUTUMN

Sowing density: 1 to 3 g/m<sup>2</sup>

#### Mowing

Generally, mowing or shredding encourages regrowth, as does the use of an organic soil improver at the beginning of the year (if necessary). A tractor with a rotary cutter allows the stems to be shredded and encourages breakdown of the residue on site. A lawnmower with the blade at the highest setting may be used for small areas.



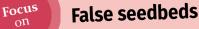
#### SITE SELECTION

- **Ideally:** good and preferably weed-free garden soil.
- Avoid: areas that have suffered heavy soil disturbance between the topsoil and subsoil, which often have too many weeds.

#### **SOIL PREPARATION**

The ground must be prepared using suitable equipment, as when sowing a lawn. To prepare a flowerbed, it is preferable to give the ground a thorough, deep spading before finely raking over the surface.

To minimise the presence of weeds in the flower mix, we recommend using the false seedbed technique.



Two or three false seedbeds are often required. After preparing the soil, allow the weed seeds to germinate, then destroy them by shallow tillage (of the first few centimetres of the surface only to avoid bringing up any more weed seeds). The flower mix should be sown as soon as the ground has been prepared again.



Focus on

### Density of sowing

Depending on the sowing conditions, the ideal sowing density varies **from 1 to 5 grammes per m²**. Soil quality and preparation and access to irrigation are elements which influence the choice of sowing density.

For example, in rock gardens or on non-irrigated land, the density will be higher (3 to  $5 \text{ g/m}^2$ ).

Conversely, if the sowing period is optimal, the density can be decreased (1 to 2 g/m²) in order to encourage species diversity. Careful! **Exceeding 5 g/m² would be wasteful!** Too high a density increases competition between the plants and decreases the number of species, in particular the late-flowering ones that bloom in the late season and which prolong the mix's flowering period.

#### **IN SOWING**

- Preferably sow once the ground has warmed up:
- May-June in a cold area
- March-April in a warm area

At the time of sowing, the seeds should be poured into a container and stirred in order **to obtain a homogeneous mixture**.

- Choose the **correct seed density** for the sowing period and the agronomic and climatic conditions.
- To **facilitate sowing** and for equal seed distribution, you may **mix the seeds with an inert material** such as buckwheat husks, vermiculite or fine and dry soil. Mix thoroughly to obtain a homogeneous mixture (substrate + seeds), then remix regularly when sowing.
- When sowing in spring, a light raking of the surface is sufficient, followed by regular watering during the germination period. In autumn, surface-sow without covering the seeds.

#### **MAINTENANCE**

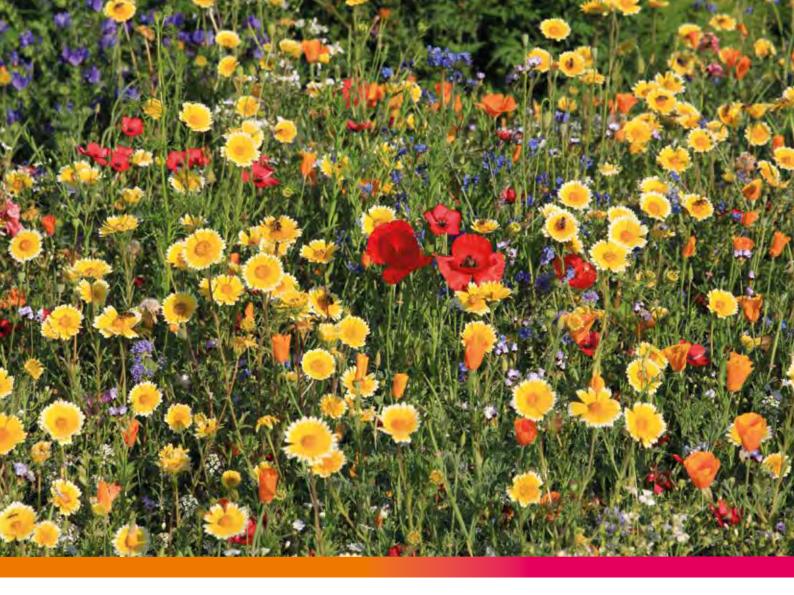
#### Irrigation

After sowing, watering is necessary for the first few weeks to encourage germination and plant growth. Depending on the type of soil and the climatic conditions, watering during the summer may significantly prolong flowering.

#### Occasional weeding

Depending on the results obtained, it may be advisable to intervene from time to time to pull out weeds when they come up; your flower mix will flourish all the more. Amaranth, Goosefoot, Crabgrass, Black Nightshade and Foxtail are all invasive weeds which develop rapidly from May to June onwards. Leaving weeds to grow in the first year would compromise the flower meadow.





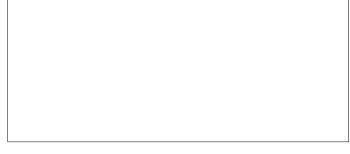




#### +31 (0) 228 544 066 grainesbertrand@econseeds.com

<b>EconSeeds Production SCEA</b>
ZA Anjou Actiparc de Jumelles
391 rue de Plaisance
49160 Longué-Jumelles FRANCE

EconSeeds BV De Gouw 74/A 1616 DD Hoogkarspel THE NETHERLANDS



#### www.bertrand-flowers.com