

# CONDITION Arthritis

Canna Farms produces several products that are reported to provide a reduction in the aches and pains associated with Arthritis, as well as the distressing mental state that often accompanies the physical symptoms. Canna Farms products are reported to provide a greater reduction of joint pain, muscle pain, joint stiffness/inflammation and anxiety/irritability on average vs. non-Canna Farms products, with minimal negative side effects. The chronic discomfort associated with Arthritis can be reduced with several effective products, which have a range of THC content making the suite of products accessible for patients with all levels of experience with cannabis. Many of the products also contain the terpene Beta-Caryophyllene, which is the only terpene to react directly with the body's CB2 receptors, reducing inflammation in the body when activated.<sup>1</sup>

1Ceccarelli, Ι., Fiorenzani, P., Pessina, F., Pinassi, J., Aglianò, M., Miragliotta, V., & Aloisi, A. M. (1AD, January 1). The CB2 agonist β-caryophyllene in male and female rats exposed to a model of persistent inflammatory pain. Frontiers

### Side Effects

All patients react differently to cannabis. It is common for patients to experience dry mouth, hunger, and red eyes which are common side effects of cannabis.

## **Emotive Effects**

*Positive:* aroused, comfortable, creative, dreamy, energized, euphoric, focused, giggly, happy, light, motivated, pain free, positive, refreshed, relaxed, talkative, upbeat, less aware of pain

*Neutral:* couch locked, foggy, forgetful, hungry, lethargic, red eyes, restless, sleepy, thirsty, tired, zoned out

*Negative:* anxious, dizzy, headache, nauseous, paranoid, racing heart

## How to Read Efficacy Scores

The % efficacy refers to the % decrease in the discomfort or severity of the symptom, as reported by the patient on the app.

Disclaimer: The purpose of this symptom sheet is to share data on subjective patient experiences, NOT to provide diagnosis or treatment recommendations. This symptom sheet will NOT provide you with information related to the specific health risks of individuals, nor is it designed or intended to be a substitute for advice from a medical or healthcare practitioner. No information contained in this symptom sheet or in any Strainprint software or on any Strainprint website is provided with the intention of giving medical advice or instructions on the accurate use of cannabis. Strainprint does not recommend or endorse any specific products, brands, treatment plans, consumption methods, procedures, opinions or other information that may be mentioned within this symptom sheet. You should always consult a healthcare professional for medical advice before using cannabis.

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The Canna Farms products reported to provide the best relief from this pain are **Pink Kush**, **Girl Scout Cookies**, and **CBD Critical Mass**. They all show higher efficacy than non-Canna Farms products (48% on average vs. 36% on average for non-Canna Farms). **Pink Kush** and **Girl Scout Cookies** are THC dominant (the intoxicating ingredient), and contain higher levels of Limonene and Beta-Caryophyllene, which reduce inflammation and pain. Since both of these are high in THC (18-26%), they are recommended for experienced cannabis users. **Pink Kush** may produce the 'sleepiest' effects, making it appropriate for evenings. **CBD Critical Mass** is more suitable for daytime use and for new users since it contains less THC and a higher level of CBD (5% THC, 9% CBD). The CBD may also be helpful in reducing inflammation and associated pain. Adverse reactions resulting from the use of these products is very rare; at most only 2% of sessions report a negative side effect, comparable with non-Canna Farms products. All products perform well whether smoked or vaped.

# **Top Products**

Pink Kush	T
Туре	THC Dominant Hybrid
THC 18-24%	CBD <0.1%
Dominant B Terpenes	eta Caryophyllene Limonene <i>è</i> Myrcene 🕖
ePROs (n=874)	Users (n=99)
Optimal Dose	4-6 inhalations
Ingestion Method	Vape, Smoke

# **Average Efficacy**

Pink Kush	51%
Girl Scout Cookies	46%
CBD Critical Mass	48%
Non-Cana-Farms Product Average	36%

#### **Girl Scout Cookies** 1 Туре THC Dominant Hybrid THC 18-26% CBD <0.1% Dominant Limonene 🥏 Terpenes Beta Caryophyllene 🜿 Pinene 📌 ePROs (n=1300) Users (n=141)**Optimal Dose** 4-6 inhalations Ingestion Method Vape, Smoke

# Efficacy by Gender

Pink Kush	female	50%	male	54%
Girl Scout Cookies	female	33%	male	50%
CBD Critical Mass	female	48%	male	48%

#### **CBD** Critical Mass $\bigcirc$ CBD Dominant Hybrid Type THC 5% CBD 9% Myrcene 🥖 Dominant Terpenes Alpha Pinene 📌 ePROs (n=415) Users (n=43) **Optimal Dose** 6-8 inhalations Ingestion Method Vape

# Efficacy by Age

Pink Kush	18-34	43%	35+	53%
Girl Scout Cookies	10.24	51%	251	45%
CBD Critical Mass	18-34	57%	35+	44%

# Efficacy by Method of Ingestion

Pink Kush	smoke	50%	vape	51%
Girl Scout Cookies	smoke	45%	vape	46%
CBD Critical Mass	smoke	50%	vape	47%

# **Top Reported Effects**

Pink Kush	Relaxed, comfortable, happy, thirsty, sleepy, light, dreamy, pain-free.
Girl Scout Cookies CBD Kush	Relaxed, comfortable, happy, pain-free, thirsty, focused, light Relaxed, comfortable, happy, pain free, thirsty, focused, light

# Pre and Post Medication Score

Pink Kush	pre	5.5	post	1.9
Girl Scout Cookies	pre	6.3	post	2.8
CBD Critical Mass	pre	6.4	post	2.7

# Awake vs. Sleepy Effects

% of users who reported sleepy or awake effects:				
Pink Kush	sleepy	48%	awake	31%
Girl Scout Cookies	sleepy	37%	awake	43%
CBD Critical Mass	sleepy	33%	awake	40%

# **Emotive Effect Sentiment**

% of mentions:	positive	neutral	negative
Pink Kush	75%	24%	1%
Girl Scout Cookie	s 76%	23%	1%
CBD Critical Mass	s <b>74%</b>	23%	3%
Non-Canna Farms	s Product A	Verage	2%





The Canna Farms products with above average efficacy for treating muscle pain are all THC dominant: Girl Scout Cookies, Pink Kush & Tangerine Dream. On average, these products reduce muscle pain by 48%, compared to non-Canna Farms products which reduce pain by 36%. All of these products contain either Limonene<sup>2</sup>or Beta Caryophyllene,<sup>3</sup> which reduce inflammation. **Pink Kush** and **Tangerine Dream** also contain Myrcene,<sup>4</sup> another anti-inflammatory terpene, which is also reported to reduce pain, especially when combined with THC. Tangerine Dream has the lowest THC content of the three, and is reported to provide more stimulating effects than sedative effects<sup>5</sup> Both Pink Kush and Girl Scout Cookies are reported to make one feel tired and are better suited for nighttime. Adverse effects are only caused in 1% of reported interactions with the products, even lower than the 2% reported negative effects felt when consuming non-Canna Farms products. All products perform well whether smoked or vaped.

# **Top Products**

Girl Scout Cookies	Ū
Туре	THC Dominant Hybrid
THC 18-26%	CBD <0.1%
Dominant Terpenes B	Limonene 🥏 eta Caryophyllene Pinene 📌
ePROs (n=605)	Users (n=97)
Optimal Dose	6-7 inhalations
Ingestion Method	Vape, Smoke

# **Average Efficacy**

Girl Scout Cookies	45%
Pink Kush	44%
Tangerine Dream	<b>42</b> %
Non-Cana-Farms Product Average	36%

Ū
minant Hybrid
<0.1%
ophyllene imonene <i>è</i> Myrcene 💋
(n=71)
7 inhalations
/ape, Smoke

# Efficacy by Gender

Girl Scout Cookies	female	39%	male	48%
Pink Kush	female	43%	male	41%
Tangerine Dream	female	39%	male	41%

#### **Tangerine Dream** Туре THC Dominant Hybrid THC 14-22% CBD <0.1% Dominant Myrcene 🥖 Pinene 📌 Terpenes Beta Caryophyllene 🜿 ePROs (n=340) Users (n=50) **Optimal Dose** 8-9 inhalations Ingestion Method Vape, Smoke

# Efficacy by Age

Girl Scout Cookies	18-34	48%	35+	44%
Pink Kush	18-34	48%	35+	39%
Tangerine Dream	18-34	41%	35+	41%

# Efficacy by Method of Ingestion

Girl Scout Cookies	smoke	45%	vape	46%
Pink Kush	smoke	44%	vape	44%
Tangerine Dream	smoke	42%	vape	42%

## **Top Reported Effects**

Girl Scout Co	okies relaxed, happy, comfortable, focused, thirsty, light, pain-free
Pink Kush	relaxed, comfortable, happy sleepy, thirsty, dreamy, pain-free

Tangerine Dream relaxed, happy, comfortable, focused, light, thirsty, pain-free

# Pre and Post Medication Score

Girl Scout Cookies	pre	6.1	post	2.6
Pink Kush	pre	5.3	post	2.4
Tangerine Dream	pre	5.6	post	2.6

# Awake vs. Sleepy Effects

% of users who reported sleepy or awake effects: Girl Scout Cookies sleepy **48**% awake 45%

Pink Kush	sleepy	46%	awake	41%
Tangerine Dream	sleepy	38%	awake	54%

# **Emotive Effect Sentiment**

% of mentions:	positive	neutral	negative
Girl Scout Cookies	5 70%	29%	1%
Pink Kush	72%	28%	1%
Tangerine Dream	75%	24%	1%
Non-Canna Farms	s Product A	Verage	2%

de Cássia da Silveira E Sá, R., Lima, T. C., da Nóbrega, F. R., de Brito, A., & de Sousa, D. P. (2017). Analgesic-Like Activity of Essential Oil Constituents: An Update. International journal of molecular sciences, 18(12), 2392

3 Scandiffio R, Geddo F, Cottone E, et al. Protective Effects of (E)-B,Caryophyllene (BCP) in Chronic Inflammation. Nutrients. 2020;12(11):3273. Published 2020 Oct 26. doi:10.3390/nu12113273 4 Surendran, S., Qassadi, F., Surendran, G., Lilley, D., & Heinrich, M. (2021). Myrcene-What Are the Potential Health Benefits of This Flavouring and Aroma Agent?. Frontiers in nutrition, 8, 699666. 5 Zaid H. Maayah, Shingo Takahara, Mourad Ferdaoussi, Jason R.B. Dyck (2020). The molecular mechanisms that underpin the biological benefits of full-spectrum cannabis extract in the treatment of neuropathic pain and inflammation, Blochimica et Biophysica Acta (BBA) - Molecular Basis of Disease, Volume 1866(7), 165771

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The Canna Farms products reported to provide higher efficacy than non-Canna Farms products (38%) from insomnia are **CBD Critical Mass** (48%), **Pink Kush** (46%) and **Girl Scout Cookies** (46%). **CBD Critical Mass** contains CBD and much less THC than the other two products, yet they are all high in anti-inflammatory terpenes such as Beta-Caryophyllene, Limonene and Myrcene. **CBD Critical Mass** has lower THC and a higher pinene content, which makes it more suitable for daytime as pinene is known to increase alertness.<sup>6</sup> **Pink Kush** can be a good choice for use at night, as 55% of patients reported that they felt sleepy when they used it. Adverse effects are rare; only 1% of use occasions resulted in a negative reaction. **CBD Critical Mass** is most effective when smoked while **Pink Kush** and **Girl Scout Cookies** are reported to provide more effective symptomatic relief when vaporized.

# **Top Products**

CBD Critical Mass	©
Туре	CBD Dominant Hybrid
THC 5%	CBD 9%
Dominant Terpenes	Myrcene 🥖 Alpha Pinene ᢞ
ePROs (n=680)	Users (n=39)
Optimal Dose	6-8 inhalations
Ingestion Method	Smoke

Pink Kush	Ū
Туре	THC Dominant Hybrid
THC 18-24%	CBD <0.1%
Dominant B Terpenes	eta Caryophyllene 💥 Limonene <i>è</i> Myrcene 🕖
ePROs (n=976)	Users (n=98)
Optimal Dose	6-7 inhalations
Ingestion Method	Vape

# Average Efficacy

CBD Critical Mass	4	8%
Pink Kush	4	<b>6</b> %
Girl Scout Cookies	4	6%
Non-Cana-Farms Produ	ct Average 3	8%

# Efficacy by Gender

CBD Critical Mass	female	44%	male	<b>49</b> %
Pink Kush	female	41%	male	<b>49</b> %
Girl Scout Cookies	female	36%	male	50%

#### **Girl Scout Cookies** 1 THC Dominant Hybrid Туре 18-26% THC CBD <0.1% Dominant Limonene 🥖 Terpenes Beta Caryophyllene % Pinene 🕊 (n=1200) ePROs Users (n=121) **Optimal Dose** 6-7 inhalations Ingestion Method Vape

# Efficacy by Age

CBD Critical Mass	18-34	67%	35+	43%
Pink Kush	18-34	49%	35+	46%
Girl Scout Cookies	18-34	52%	35+	45%

# Efficacy by Method of Ingestion

CBD Critical Mass	smoke	59%	vape	45%
Pink Kush	smoke	44%	vape	50%
Girl Scout Cookies	smoke	<b>42</b> %	vape	51%

# **Top Reported Effects**

CBD Critical Mass	relaxed, comfortable, happy, thirsty, focused, light
Pink Kush	relaxed, comfortable, happy, thirsty, focused, dreamy
Girl Scout Cookies	relaxed, comfortable, happy, thirsty, focused, light

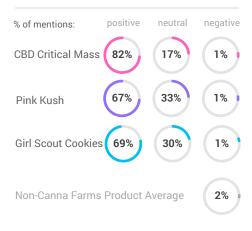
# **Pre and Post Medication Score**

CBD Critical Mass	pre	6.0	post	2.4
Pink Kush	pre	5.6	post	2.3
Girl Scout Cookies	pre	6.0	post	2.5

# Awake vs. Sleepy Effects

% of users who repor	ted sleep	oy or awa	ke effec	ts:
CBD Critical Mass	sleepy	28%	awake	<b>49</b> %
Pink Kush	sleepy	55%	awake	37%
Girl Scout Cookies	sleepy	36%	awake	40%

# **Emotive Effect Sentiment**



6 Lizarraga-Valderrama, LR. Effects of essential oils on central nervous system: Focus on mental health. Phytotherapy Research. 2021; 35: Pages 657–679

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Many patients experience negative mood states when dealing with a painful chronic condition, such as Arthritis. The Canna Farms products reported to provide higher efficacy (52%) than non-Canna Farms products (47%) include **CBD Kush**, **Pink Kush** and **Girl Scout Cookies**, and these products range in THC content making them accessible to patients with varying levels of comfort with THC. **CBD Kush** shows a reduction in anxiety and irritability, and promote feeling calm, while the other two products, are high in Beta-Caryophyllene, also known to be helpful in the reduction in negative mood state,<sup>7</sup> when it reacts with CB2 receptors in the body. **Girl Scout Cookies** and **Pink Kush** also contain higher levels of Limonene which is known to elevate mood.<sup>8</sup> **CBD Kush** is more suitable for daytime; only one-in-four patients reported feeling sleepy. **Pink Kush** and **Girl Scout Cookies** are more likely to cause sleepiness. **CBD Kush** and **Pink Kush** are reported to provide equal relief whether smoked or vaped, while **Girl Scout Cookies** appears to be slightly more effective when vaped.

# **Top Products**

CBD Kush	©
Туре	CBD Dominant Hybrid
THC 5%	CBD 8%
Dominant Terpenes	Myrcene 🥑 Alpha Pinene 📌
ePROs (n=290)	Users (n=21)
Optimal Dose	8-10 inhalations
Ingestion Method	Vape, Smoke

Pink Kush			Ū
Туре		THC Domi	nant Hybrid
THC	<b>18-24</b> %	CBD	<0.1%
Dominant Terpenes	B		hyllene nonene <i>è</i> yrcene 🕖
ePROs (r	1=318)	Users	(n=69)
Optimal Do	se	6-8 ii	nhalations
Ingestion N	/lethod	Sm	oke, Vape

Girl Scout Cookies	Ū
Туре	THC Dominant Hybrid
THC 18-26%	CBD <0.1%
Dominant Terpenes B	Limonene 🥏 eta Caryophyllene Pinene 📌
ePROs (n=653)	Users (n=83)
Optimal Dose	4-5 inhalations
Ingestion Method	Vape

# **Average Efficacy**

CBD Kush	62%
Pink Kush	53%
Girl Scout Cookies	51%
Non-Cana-Farms Product	Average 47%

# **Efficacy by Gender**

CBD Kush	female	67%	male	60%
Pink Kush	female	49%	male	56%
Girl Scout Cookies	female	46%	male	55%

# Efficacy by Age

CBD Kush	18-34	57%	35+	63%
Pink Kush	18-34	61%	35+	51%
Girl Scout Cookies	18-34	56%	35+	<b>49</b> %

# Efficacy by Method of Ingestion

CBD Kush	smoke	61%	vape	62%
Pink Kush	smoke	53%	vape	54%
Girl Scout Cookies	smoke	48%	vape	55%

# **Top Reported Effects**

CBD Kush	relaxed, comfortable, happy, pain-free, focused, light
Pink Kush	relaxed, comfortable, happy, thirsty, focused, dreamy, pain-free
Cirl Scout (	Contrine releved comfortable hanny

Girl Scout Cookies relaxed, comfortable, happy, thirsty, focused, light, dreamy

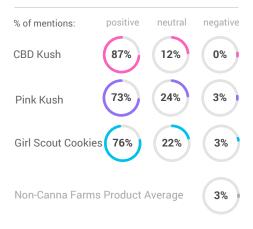
# **Pre and Post Medication Score**

CBD Kush	pre	5.9	post	1.3
Pink Kush	pre	6.4	post	2.2
Girl Scout Cookies	pre	6.5	post	2.5

# Awake vs. Sleepy Effects

% of users who reported sleepy or awake effects:						
CBD Kush	sleepy	24%	awake	43%		
Pink Kush	sleepy	41%	awake	36%		
Girl Scout Cookies	sleepy	37%	awake	41%		

# **Emotive Effect Sentiment**



7 Hwang, E., Kim, H., Lee, S., Kim, M., Kim, K.J., Han, G., Han, S., Lee, E., Yoon, J., Kim, D., Maeng, S., & Park, J. (2020). Antidepressant-like effects of β-caryophyllene on restraint plus stress-induced depression. Behavioural Brain Research, 380. 8 Jaesuk Yun, Limonene inhibits methamphetamine-induced locomotor activity via regulation of 5-HT neuronal function and dopamine release. Phytomedicine, Volume 21, Issue 6, 2014, Pages 883-887